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August 16, 2021

Mr. Chip Poalinelli
Section Manager - California Site Cleanup Section I
United States Environmental Protection Agency
75 Hawthorne Street
San Francisco, California 94105

Subject: Quarterly Performance Evaluation Report, Second Quarter 2021
Full Scale On-Site Soil Remedy
Omega Chemical Superfund Site, Operable Unit 1, Whittier, California

Dear Mr. Poalinelli:

Enclosed for your review is the second quarter 2021 Performance Evaluation Report for the Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site, Operable Unit1, Whittier, California.

Should you have any questions, regarding the above, please contact me.

Sincerely,

Omega OU1/OU3 LLC

Edward Modiano
Officer, Omega OU1/OU3 LLC

Jaime Dinello, PE
Project Manager

cc: Don Indermill, DTSC

de maximis, inc.

AUGUST 16, 2021

FULL SCALE ON-SITE SOIL REMEDY
PERFORMANCE EVALUATION REPORT
SECOND QUARTER 2021
OMEGA CHEMICAL SUPERFUND SITE, OU-1

Prepared for:

Omega OU1/OU3 LLC

Prepared by:

de maximis, inc.
1322 Scott Street, Suite 104
San Diego, CA 92106

FULL-SCALE ON-SITE SOIL REMEDY
OMEGA CHEMICAL SUPERFUND SITE, OU-1

Quarterly Performance Evaluation Report
Second Quarter 2021

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FULL-SCALE ON-SITE SOIL REMEDY

OMEGA CHEMICAL SUPERFUND SITE, OU-1

Quarterly Performance Evaluation Report

Second Quarter 2021

1. INTRODUCTION

This Quarterly Performance Evaluation Report (QPER) has been prepared on behalf of the Omega Chemical Site Potentially Responsible Parties Organized Group (OPOG) to comply with the October 6, 2010 Consent Decree No. 10-05051 (CD) between United States Environmental Protection Agency (USEPA) and OPOG (USEPA, 2010). The CD requires OPOG to design, construct, and operate a full-scale soil vapor extraction (SVE) and treatment system and perform associated monitoring to address vadose zone soil within Operable Unit 1 (OU-1). The CD Statement of Work satisfies the requirements of the 2008 OU-1 Record of Decision (ROD) (USEPA, 2008). Figure 1 shows the general location of OU-1, as well as the occupancy status of buildings within the operable unit. The locations of the OU-1 SVE system components, including the associated Vapor Extraction Wells (VEWs), the Dual Phase Extraction (DPE) wells, the treatment plant, and the associated Vapor Monitoring Probes (VMPs), are presented in Figure 2.

Remedial Action Objective (RAO) compliance monitoring includes the collection of soil gas and indoor air data within the OU-1 boundary. Current monitoring requirements are as follows:

- OU-1 SVE system operational data are collected to determine whether treated vapor emissions are substantively compliant with South Coast Air Quality Management District (SCAQMD) requirements as well as to conform to the requirements of the Draft OU-1 SVE Operations, Maintenance, and Monitoring (OM&M) Manual (CDM Smith, 2018a). OPOG responded to USEPA's comments on the Draft OM&M Manual and Sampling and Analysis Plan on June 18, 2019. USEPA provided concurrence to OPOG's responses on February 25, 2021. OPOG is currently finalizing the OM&M Manual and expects to submit the final version to USEPA later in 2021. These data are included in Section 2.

- Shallow soil gas data are collected semi-annually during the first and third quarters from specified VMPs in the shallow vadose zone (0 – 30 feet below ground surface [bgs]). However, the OU1 SVE system will be shut down during the third quarter of 2021 as part of the voluntary OU1 data collection program to evaluate remaining contaminant mass in OU1 as conditionally approved by USEPA on April 29, 2021 (USEPA, 2021). The annual VMP monitoring event usually conducted in the third quarter of each year will be superseded by scope of the voluntary OU1 data collection program and will be reported as a separate data submittal to EPA.

- Deep soil gas data are collected semi-annually during the first and third quarters from specified VMPs in the deep vadose zone (40 – 70 feet bgs). Thus, no deep soil gas data were collected this quarter. However, the OU1 SVE system will be shut down during the third quarter of 2021 as part of the voluntary OU1 data collection program to evaluate remaining contaminant mass in OU1 as conditionally approved by USEPA on April 29, 2021 (USEPA, 2021). The annual VMP monitoring event usually conducted in the third quarter of each year will be superseded by scope of the voluntary OU1 data collection program and will be reported as a separate data submittal to EPA.

- Indoor air data are collected semi-annually during the first and third quarters from within occupied OU-1 buildings. Thus, no indoor air data were collected this quarter.

- Soil concentration data in the shallow vadose zone (0 – 30 feet bgs) will be collected in 3Q2021 as part of the voluntary OU1 data collection program to evaluate remaining contaminant mass in OU1 as conditionally approved by USEPA on April 29 2021 (USEPA, 2021). This data will be reported as a separate data submittal to EPA.

2. OU-1 SVE SYSTEM OPERATIONS THIS QUARTER

The OU-1 SVE System functioned this quarter with minimal issues or downtime. Alarm testing was conducted on June 11, 2021 and all alarms functioned as intended. Approximately 5.4 pounds of volatile organic compound (VOC) mass were removed from soil gas this quarter, compared to 5.2 pounds removed in the previous quarter. Figure 3 shows the cumulative mass removed since 2010.

VACUUM BLOWER

As shown in Attachment A, Table A-1, the OU-1 SVE system functioned this quarter with an up time of approximately 99%.

VAPOR EXTRACTION WELLS (VEWs) AND DUAL PHASE EXTRACTION (DPE) WELLS

All OU-1 SVE system VEWs and DPE wells were mechanically functional during this quarter. VEW and DPE well operational data, including flow rate, total VOC concentrations, as measured by PID readings and laboratory analyses (if analytical samples were collected), vacuum, temperature, relative humidity, and estimated mass removed per well during the quarter are presented in Attachment B, Table B-1. No VEW influent manifold valve adjustments were recommended this quarter.

VAPOR MONTORING PROBES

The extraction wells provided enough vacuum influence to continue to remove mass and mitigate vapor migration. Per the EPA-approved soil gas memo (CDM Smith, 2018b), vacuum/pressure monitoring at specified VMPs shall be conducted quarterly, and analytical monitoring shall be conducted semi-annually (typically first and third quarters) except for select VMPs which are monitored for both vacuum and analytical concentrations annually. A summary of the VMP vacuum monitoring performed this quarter is included in Attachment C (Tables C-1/Figure C-1 and Table C-2/Figure C-2 for shallow and deep VMPs respectively). All VMPs that did not exhibit a vacuum of at least 0.1 inches of water column were located within the design radius of influence (ROI) of a VEW connected to the offline AOC system (VE-21S, VE-39S, VE-31S, VE-6D, and VE-10D), were located at the edge of or beyond the design ROI of an operational VEW or DPE well (DPE-5), or were within the design ROI of a VEW where low VOC concentrations has led to EPA-approved operational cycling and reduced flow (VE-14S and VE-15S).

Semi-annual VMP analytical monitoring was not conducted this quarter. Figures 4 and 5 are placeholders for presentations of concentrations of PCE and TCE measured during a quarter.

Attachment D serves as a placeholder for monitoring data collected from other VMPs not included in the EPA-approved soil gas memo (note that no VMPs of this type were sampled this quarter).

TREATED VAPOR DISCHARGE

The OU-1 SVE system operated in accordance with treated vapor discharge limits and Vapor-Phase Granular Activated Carbon (VGAC) operational requirements. The VGAC changeout criteria were not triggered during this quarter (Attachment A). The criteria are currently based on the existing Health Risk Assessment (HRA, CDM Smith, 2015). The most recent carbon changeouts of the lead and lag vessels were completed on March 15, 2019 and December 11, 2020, respectively.

Table 1 shows the VOC concentrations in the VGAC influent, midpoint, and effluent samples and effluent discharge limits. As discussed in the GAC assessments included in Attachment A, the OU-1 SVE system did not meet the conditions for a GAC changeout presented in the existing HRA this quarter and is therefore substantively compliant. OPOG will continue tracking these trends. Figure 6 shows VGAC influent concentrations for PCE and TCE since 2010. Attachment A, Table A-1 shows the flow rate, temperature, and total VOC concentrations, as measured using a PID. Figure A-1 shows selected parameters over time.

Operational field forms (for all monitoring discussed in this section) are provided in Attachment E. Analytical laboratory reports are provided in Attachment F. A summary of the results of the data quality assessment and data validation reports are provided in Attachment G.

3. SOIL GAS COMPLIANCE MONITORING

Per the EPA-approved soil gas memo, semi-annual VMP analytical monitoring was not conducted this quarter.

4. INDOOR AIR COMPLIANCE MONITORING

The occupancy status and current monitoring schedule for each building is summarized in Table 2. Indoor air sampling is generally only conducted in buildings that are occupied. Occupancy status is verified each quarter.

As discussed above, indoor air compliance monitoring is conducted during the Annual (January) and Semi-Annual (July) monitoring events. Thus, no routine indoor air monitoring was conducted during the second quarter. Figure 7, not included this quarter, is a placeholder to present indoor air monitoring results for PCE and TCE. Attachment H is a placeholder for a

summary of indoor air monitoring results.

5. SUBMITTALS DURING THE QUARTER

The following submittals were provided to USEPA this quarter as part of the OU-1 Full Scale On-site Soil Remedy:

- Full Scale On-site Soil Remedy QPER, First Quarter 2020 (May 17, 2021)

6. PLANNED ACTIVITIES

Planned operational and monitoring activities scheduled for the next quarter include the following:

- Shutdown of the OU-1 SVE System as part of the OU-1 Additional Data Collection Program (shutdown to occur in July 2021)
- Monthly vacuum, flow, temperature and PID monitoring at VEWs and DPE wells (during OU-1 SVE operations)
- Monthly assessment of VGAC effectiveness and need for VGAC changeout (during OU-1 SVE operations)
- July Semi-Annual IAQ monitoring event per the 2020 Indoor Air Quality Sampling Plan (de maximis, 2019)
- Quarterly performance reporting

7. PROBLEMS OR ISSUES OF CONCERN

None.

8. REFERENCES

CDM Smith. (2015). *Memorandum: Treatment of Effluent from Groundwater Treatment System and Soil Vapor Extraction, Omega Chemical Superfund Site, Whittier, California 90602,* February 26

CDM Smith. (2018a). *DRAFT – Operable Unit 1 Soil Vapor Extraction System Operations, Maintenance, and Monitoring Manual,* December 21.

CDM Smith. (2018b). *Revised 2018 Operable Unit 1 (OU-1) On-site Soil Remedy Soil Gas Monitoring,* August 27

de maximis, inc. (2019). *2020 Indoor Air Quality Sampling Plan, Omega Chemical Superfund Site.* November 26

USEPA. (2008). *Record of Decision for OU-1 Soils.*

USEPA. (2010). *Consent Decree Docket No. 10-05051,* October 6

USEPA. (2021). Confirmation of Path Forward on OPOG's Voluntary Data Collection Work on OU1, April 29

TABLES

Table 1
Vapor Phase GAC Analytical Data Demonstrating Substantive Compliance With SCAQMD Regulations
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site
Second Quarter 2021

SCAQMD Chemical-Specific Effluent Limit[1]			2,208	198	84	15	14	48	1,082	65
Sample Location	**Sample Date**	**Units**	**PCE**	**TCE**	**VC**	**11DCA**	**12DCA**	**CF**	**MeC**	**BEN**
SVE1 GAC INFLUENT	4/16/2021	ppbv	57	3.6	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U
SVE1 GAC MIDPOINT	4/16/2021	ppbv	4.4	1.2	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U
SVE1 GAC EFFLUENT[2]	4/16/2021	ppbv	**37**	**1.2**	**1.0 U**	**1.0 U**	**1.0 U**	**1.0 U**	**10 U**	**1.2**
SVE1 GAC INFLUENT	5/7/2021	ppbv	57	3.8	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U
SVE1 GAC MIDPOINT	5/7/2021	ppbv	3.8	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U
SVE1 GAC EFFLUENT[2]	5/7/2021	ppbv	**33**	**1.3**	**1.0 U**	**1.0 U**	**1.0 U**	**1.0 U**	**10 U**	**1.0 U**
SVE1 GAC INFLUENT	6/4/2021	ppbv	58	3.6	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U
SVE1 GAC MIDPOINT	6/4/2021	ppbv	2.0	1.2	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U
SVE1 GAC EFFLUENT[2]	6/4/2021	ppbv	**17**	**0.97 U**	**0.97 U**	**0.97 U**	**0.97 U**	**0.97 U**	**9.7 U**	**0.97 U**
Compliance with Effluent Limits?			**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**

Notes:

1. SCAQMD effluent limits are derived from the Health Risk Assessment (CDM Smith, 2015).

2. Bold text indicates vapor effluent results from the VGAC effluent required to meet SCAQMD HRA chemical specific limits shown in the table.

OU-1 SVE GAC Influent = VOC-laden vapor sample collected at the influent to the lead VGAC vessel.

OU-1 SVE GAC Midpoint = Partially treated vapor sample collected between the lead and lag VGAC vessels.

OU-1 SVE GAC Effluent = Fully treated vapor sample collected at the effluent from the lag (polishing) VGAC vessel.

U - Not detected above reporting limit listed

PCE - Tetrachloroethene
TCE - Trichloroethene
VC - Vinyl Chloride
11DCA - 1,1-Dichloroethane
12DCA - 1,2-Dichloroethane
CF - Chloroform
MeC - Methylene Chloride
BEN - Benzene

Table 2
Status of Indoor Air Sampling at Buildings Wholly or Partially within the OU-1 Phase 1a Boundary
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site
Second Quarter 2021

Building	Location Designation	Building Occupancy	Vacancy Status Verification	Current Monitoring Status	Date Last Sampled[1]	Next Planned Sampling Date	Sampling Rationale
Sunland Enterprises (Former Omega Administration)	Within OU-1 Boundary	Occupied	Verified in person 2Q2021	Annual	1/15/2021	January 2022	- Sampled as part of Remedial Investigation - Building unoccupied between 2005 and 2018. The building is currently leased to Sunland Enterprises, Division of E&A Car Wash Systems - EPA has not requested indoor air sampling under the 2009 AOC - Under influence of soil vapor extraction since 2011 - Building was incorporated into the annual monitoring program proposed in the 2020 Indoor Air Quality Sampling Plan (submitted to EPA on November 26, 2019)
Bishop	Partly within OU-1 Boundary	Occupied	Verified in person 2Q2021	Semi-Annual	1/14/2021	July 2021	- Required indoor air sampling under the 2009 AOC - Under influence of soil vapor extraction since 2010 - Reduced monitoring frequency from quarterly to semi-annual (approved by EPA in letter to OPOG on November 28, 2018).
Madsen Roofing	Within OU-1 Boundary	Partially Occupied	Verified in person 2Q2021	Annual	1/14/2021	January 2022	- Required indoor air sampling under the 2009 AOC - Under influence of soil vapor extraction since 2010 - Reduced monitoring frequency from semi-annual to annual (approved by EPA in letter to OPOG on November 28, 2018).
Star City Auto Body	Within OU-1 Boundary	Occupied	Verified in person 2Q2021	Annual	1/14/2021	January 2022	- Required indoor air sampling under the 2009 AOC - Under influence of soil vapor extraction since 2010 - Reduced monitoring frequency from semi-annual to annual (approved by EPA in letter to OPOG on November 28, 2018).
Terra Pave	Within OU-1 Boundary	Partially Occupied	Verified in person 2Q2021	Semi-Annual	1/14/2021	July 2021	- Required indoor air sampling under the 2009 AOC - Under influence of soil vapor extraction since 2010 - Reduced monitoring frequency from quarterly to semi-annual (approved by EPA in letter to OPOG on November 28, 2018).

Notes:

1. The dates reflected in this column exclude sampling which may have occurred beyond this reporting period.

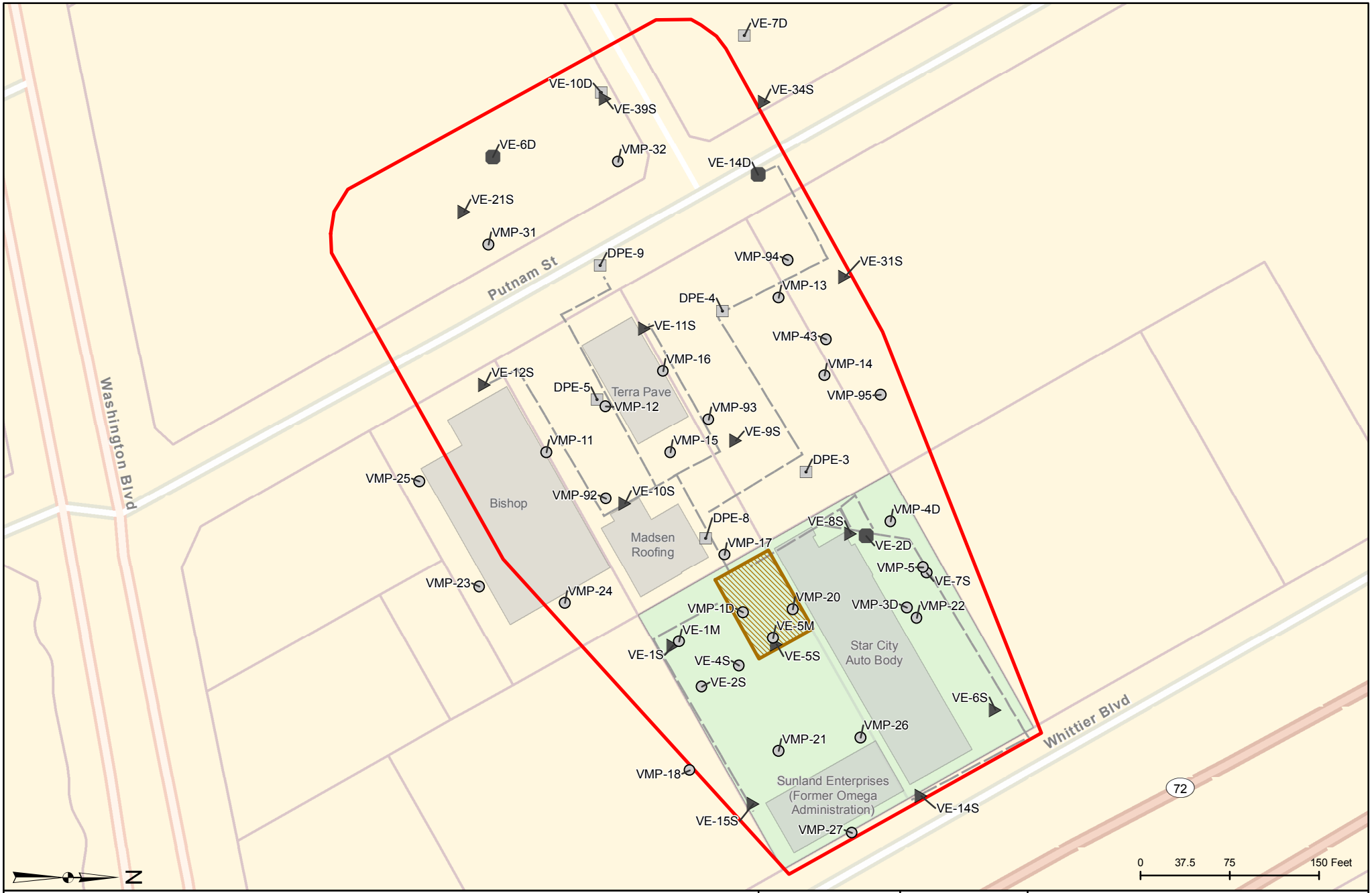
FIGURES

OU-1 Boundary
Building Currently Commercially/Industrially Occupied
Building Currently Vacant
Former Omega Chemical Property Boundary

ddms
de maximis, inc.

Reviewed By: MH
Drawn By: LEM
Date: 1/22/2019

Figure 1
OU-1 Location Map
OU-1 Full Scale On-Site Soil Remedy,
Omega Chemical Superfund Site
12504/12512 East Whittier Boulevard
Whittier, California



- Shallow Vapor Extraction Well (<30ft bgs)
- Deep Vapor Extraction Well (>30ft bgs)
- Dual Phase Extraction Well
- Building Currently Commercially/Industrially Occupied
- Building Currently Vacant
- Vapor Monitoring Probe
- OU-1 SVE Treatment Plant
- OU-1 Boundary
- Former Omega Chemical Property Boundary
- Conveyance Piping

Not all conveyance piping shown. Locations are approximate.

ddms
de maximis, inc.

Reviewed By: LM
Drawn By: KM
Date: 2/12/2019

Figure 2
OU-1 SVE System Location Map
OU-1 Full Scale On-Site Soil Remedy,
Omega Chemical Superfund Site

Figure 3
OU-1 SVE System Cumulative Mass Removed
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site
Second Quarter 2021

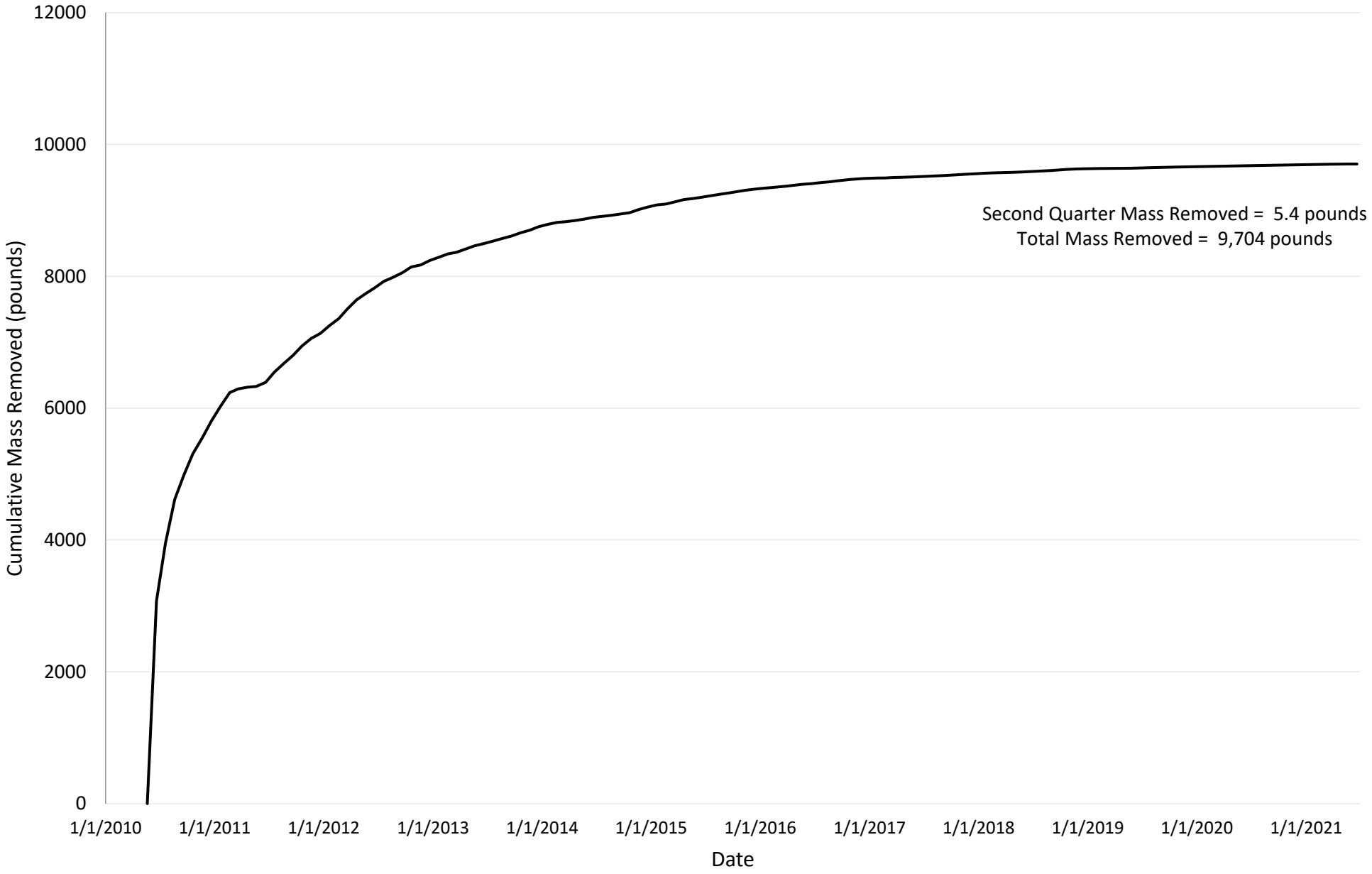
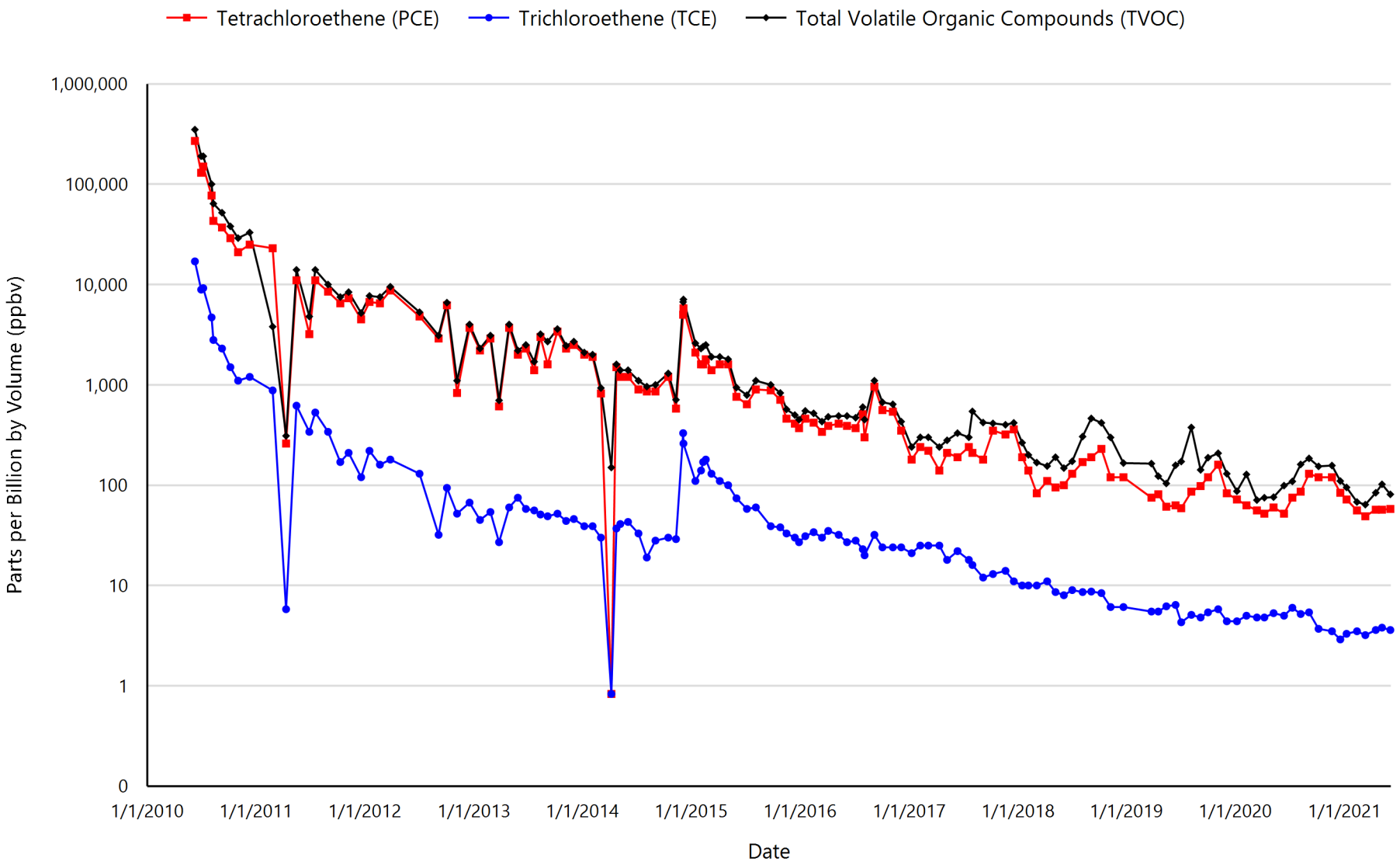


Figure 6
Vapor Phase GAC Influent Concentrations
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site
Second Quarter 2021



ATTACHMENT A

OU-1 SVE System Operational Data

Attachment A, Table A-1
OU-1 SVE System Operational Data Demonstrating Substantive Compliance With SCAQMD Operational Limits
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site
Second Quarter 2021

SCAQMD Limit[4]				1280	145				15			
HRA Changeout Criteria								50[3]		90[3]		
Date	Interval Run Time (hr)	Up Time[5] (%)	Influent Vapor Relative Humidity (%)	Influent Vapor Flow Rate (SCFM)	VGAC Influent Vapor Temperature (°F)	VGAC Effluent Vapor Temperature (°F)	VGAC Influent PID Measurement (ppmv)	VGAC Midpoint PID Measurement (ppmv)	VGAC Effluent PID Measurement (ppmv)	Lead VGAC Efficiency[1] (%)	Overall VGAC Efficiency[2] (%)	Mass Removed (lbs, monthly total)
4/2/2021	96	100	77.1	1054	106.3	91.2	2.0	0.2	0.1	---	---	2.1
4/9/2021	161	96	73.1	1086	106.3	94.5	1.3	0.5	0.3	---	---	
4/16/2021	166	99	76.3	1090	105.3	85.0	1.1	0.0	0.0	---	---	
4/23/2021	168	100	78.1	1072	104.8	85.7	1.2	0.3	0.3	---	---	
4/30/2021	169	100	--	963	109.4	98.0	1.5	0.7	0.6	---	---	
5/7/2021	168	100	--	1073	102.9	87.1	1.1	0.3	0.2	---	---	1.6
5/14/2021	167	99	--	1087	102.5	85.7	2.7	0.3	0.1	---	---	
5/21/2021	168	100	--	1093	107.2	87.1	2.6	0.2	0.0	---	---	
5/28/2021	170	100	57.3	1069	105.7	94.9	2.0	0.9	0.7	---	---	
6/4/2021	167	99	69.7	1070	106.7	91.8	1.6	0.5	0.3	---	---	1.7
6/11/2021	170	100	62.4	1076	107.9	95.6	3.6	1.6	1.1	---	---	
6/17/2021	143	99	67.6	1074	105.3	93.8	0.5	0.1	0.0	---	---	
6/25/2021	190	99	67.1	1082	107.4	92.8	2.1	0.7	0.3	---	---	
2nd Qtr 2021 Average		**99**	**69.9**	**1068**	**106.0**	**91.0**	**1.8**	**0.5**	**0.3**	**---**	**---**	**1.8**
											Total Mass Removed 2nd Qtr 2021	**5.4**
Compliance with SCAQMD Limits?				**YES**	**YES**				**YES**			
Carbon Changeout Required This Qtr?								**NO**		**NO**		

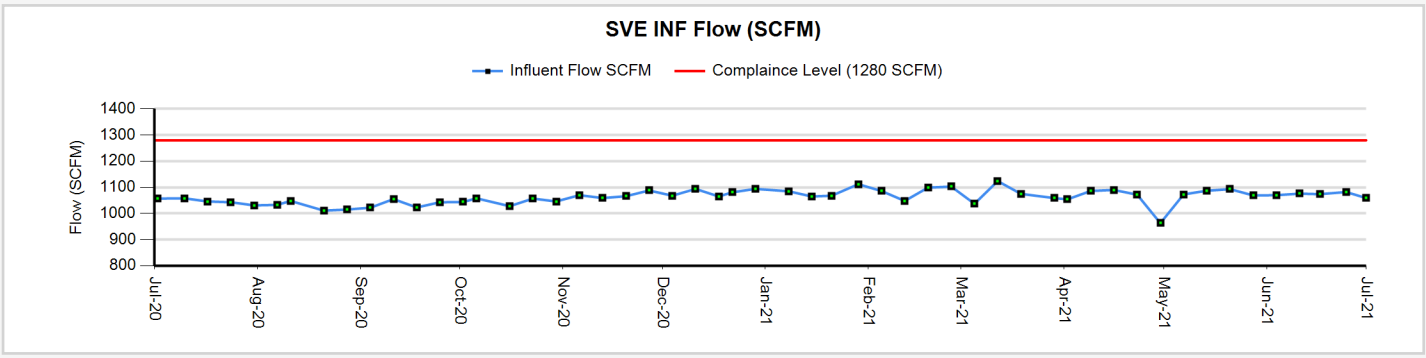
Notes:

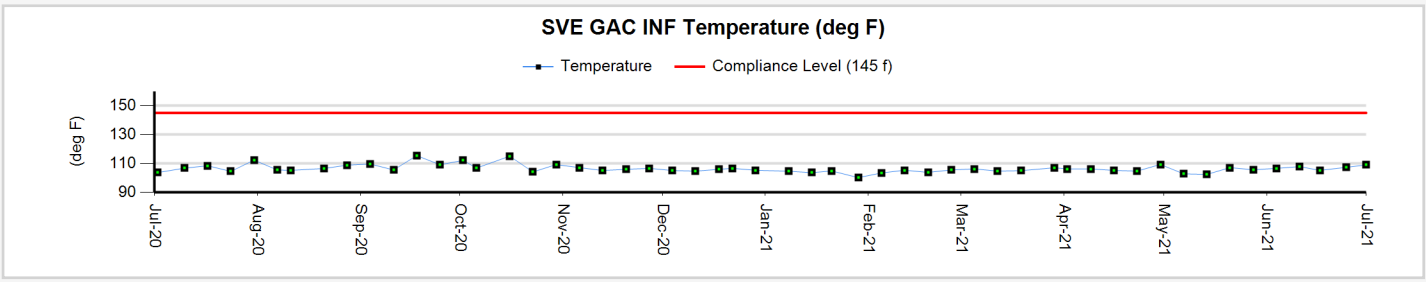
°F = degrees Fahrenheit
PID = photoionization detector
SCFM = Standard Cubic Feet per Minute
Qtr = quarter
SCAQMD = South Coast Air Quality Management District
VGAC = vapor phase granular activated carbon
ppmv = parts per million by volume as hexane
Hr = Hour
lbs = pounds

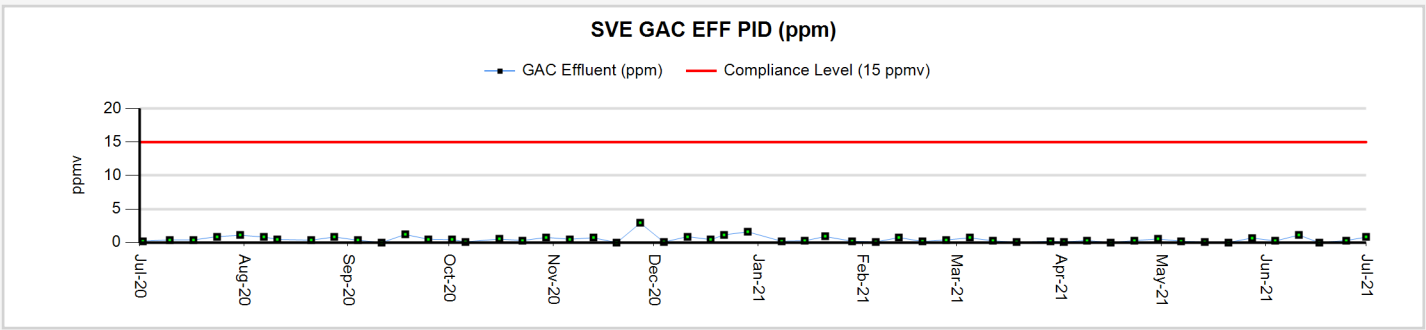
1. Lead VGAC efficiency is calculated by the PID readings between the influent and midpoint. The lead VGAC efficiency is only calculated if the influent and midpoint PID readings exceed 50 ppmv as hexane, see Note 3.
2. Overall VGAC efficiency is calculated by the PID readings between the influent and effluent. The overall VGAC efficiency is only calculated if the influent and effluent PID readings exceed 50 ppmv as hexane, see Note 3.
3. Carbon changeouts are required when the efficiency across the lead VGAC vessel drops below 90% AND the midpoint concentration exceeds 50 ppmv as hexane, by PID during the same sampling event.
4. Limits are derived from the Health Risk Assessment (CDM Smith, 2015a).
5. Up Time is calculated as the percentage of time the system is operating between the date listed and the previous measurement date.

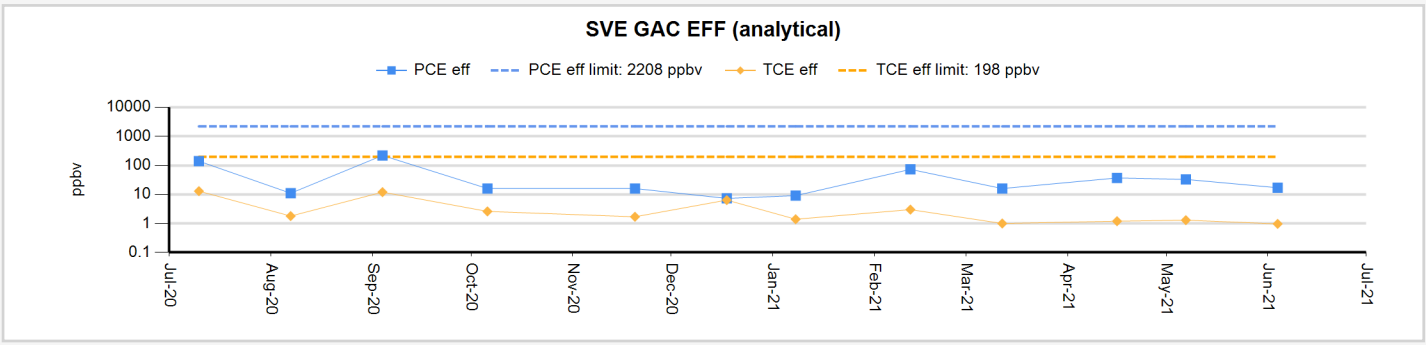
Attachment A, Figure A-1
OU-1 SVE System Operational Data (Rolling One Year)

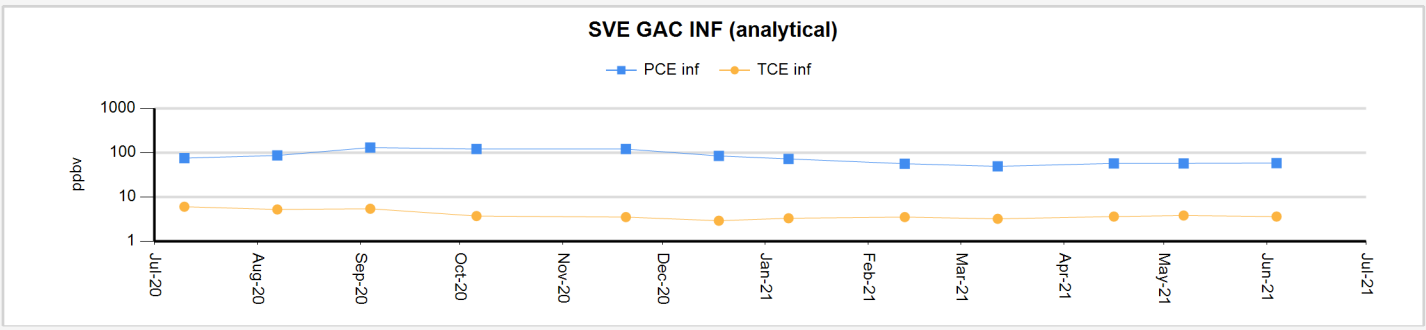
% Efficiency (PID) Across GAC Primary











Kyle King

From: Day, Maria L. <dayml@cdmsmith.com>
Sent: Thursday, July 29, 2021 3:33 PM
To: Kyle King; clucas@ddmsinc.com
Cc: Reed, Alesandra F.; kmcgill@ddmsinc.com
Subject: OMEGA OU-1 SVE April 2021 GAC Evaluation
Attachments: Omega OU-1 SVE GAC Changeout Assessment_April 2021.xlsx

Team,

We evaluated the performance of the GAC used by the OU-1 SVE system for the month of April 2021, relative to the conditions listed in the Health Risk Assessment (HRA) (CDM Smith 2015). These conditions must be met to remain in substantive compliance with SCAQMD requirements.

During the month of April, the OU-1 SVE system met the conditions presented in the HRA and is therefore substantively compliant:

- None of the toxic air contaminants listed in Condition #14 of the HRA were detected in the effluent above their respective effluent limit.
- The OU-1 SVE system did not meet the two criteria for replacement of the lead GAC vessel (listed under Condition #12 of the HRA), and therefore no GAC replacement was required.
- No other carcinogenic air contaminants beyond those listed in Condition #14 of the HRA were detected in effluent above 10 ppbv, and therefore per Condition #16, no toxic risk assessment was required.

We also evaluated all the analytical and PID data and, based on our professional judgement, we do not recommend a voluntary changeout of the lead vessel GAC at this time.

OU-1 SVE GAC Assessment – Based on Samples Collected April 16, 2021					
	Concentration (ppbv)				
Parameter	**Influent**	**Midpoint**	**Effluent**	**HRA Effluent Limit**	**Below 2015 HRA Limit?**
1,1,1-Trichloroethane (TCA)	2.1	4.3	ND	34	Yes
1,1-Dichloroethane	ND	ND	ND	15	Yes
1,1-Dichloroethene	1.4	1.6	1.1	1,243	Yes
1,2-Dichloroethane	ND	ND	ND	14	Yes
Benzene	ND	ND	1.2	65	Yes
Carbon disulfide	ND	ND	ND	1,007	Yes
Chloroform	ND	ND	ND	48	Yes
Freon 11	1.2	1.5	1.8	1,801	Yes
Freon 113	4	7.6	1.8	9,799	Yes
Freon 12	ND	ND	ND	775	Yes
Isopropyl Alcohol (Isopropanol)	ND	5.2	ND	60	Yes
Methyl ethyl ketone	12	15	43	75	Yes
Methylene chloride	ND	ND	ND	1,082	Yes

o-Xylene	ND	ND	ND	21	Yes
Tetrachloroethene (PCE)	57	4.4	37	2,208	Yes
TNMOC ref. to Heptane (MW=100)	350	130	820	17,405	Yes
Toluene	2.6	ND	ND	47	Yes
Trichloroethene (TCE)	3.6	1.2	1.2	198	Yes
Vinyl chloride	ND	ND	ND	84	Yes

Please let us know if there are any questions or if you would like to discuss the data further. Have a great day.

Maria Day
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Kyle King

From: Day, Maria L. <dayml@cdmsmith.com>
Sent: Thursday, July 29, 2021 3:35 PM
To: Kyle King; clucas@ddmsinc.com
Cc: kmcgill@ddmsinc.com; Reed, Alesandra F.
Subject: OMEGA OU-1 SVE May 2021 GAC Summary
Attachments: Omega OU-1 SVE GAC Changeout Assessment_May 2021.xlsx

Team,

We evaluated the performance of the GAC used by the OU-1 SVE system for the month of May 2021, relative to the conditions listed in the Health Risk Assessment (HRA) (CDM Smith 2015). These conditions must be met to remain in substantive compliance with SCAQMD requirements.

During the month of May, the OU-1 SVE system met the conditions presented in the HRA and is therefore substantively compliant:

- None of the toxic air contaminants listed in Condition #14 of the HRA were detected in the effluent above their respective effluent limit.
- The OU-1 SVE system did not meet the two criteria for replacement of the lead GAC vessel (listed under Condition #12 of the HRA), and therefore no GAC replacement was required.
- No other carcinogenic air contaminants beyond those listed in Condition #14 of the HRA were detected in effluent above 10 ppbv, and therefore per Condition #16, no toxic risk assessment was required.

We also evaluated all the analytical and PID data and, based on our professional judgement, we do not recommend a voluntary changeout of the lead vessel GAC at this time.

OU-1 SVE GAC Assessment – Based on Samples Collected May 7, 2021					
	Concentration (ppbv)				
Parameter	**Influent**	**Midpoint**	**Effluent**	**HRA Effluent Limit**	**Below 2015 HRA Limit?**
1,1,1-Trichloroethane (TCA)	2.3	3.8	ND	34	Yes
1,1-Dichloroethane	ND	ND	ND	15	Yes
1,1-Dichloroethene	1.8	1.7	1.2	1,243	Yes
1,2-Dichloroethane	ND	ND	ND	14	Yes
Benzene	ND	ND	ND	65	Yes
Carbon disulfide	ND	ND	ND	1,007	Yes
Chloroform	ND	ND	ND	48	Yes
Freon 11	1.2	1.3	1.3	1,801	Yes
Freon 113	4.9	6.6	ND	9,799	Yes
Freon 12	ND	ND	ND	775	Yes
Isopropyl Alcohol (Isopropanol)	11	ND	ND	60	Yes
Methyl ethyl ketone	15	7	19	75	Yes
Methylene chloride	ND	ND	ND	1,082	Yes

o-Xylene	ND	ND	ND	21	Yes
Tetrachloroethene (PCE)	57	3.8	33	2,208	Yes
TNMOC ref. to Heptane (MW=100)	270	ND	980	17,405	Yes
Toluene	ND	ND	ND	47	Yes
Trichloroethene (TCE)	3.8	ND	1.3	198	Yes
Vinyl chloride	ND	ND	ND	84	Yes

Please let us know if there are any questions or if you would like to discuss the data further. Have a great day.

Maria Day
CDM Smith
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Cell: 303.913.8864
dayml@cdmsmith.com

Kyle King

From: Day, Maria L. <dayml@cdmsmith.com>
Sent: Thursday, July 29, 2021 3:37 PM
To: Kyle King; clucas@ddmsinc.com
Cc: Reed, Alesandra F.; kmcgill@ddmsinc.com
Subject: OMEGA OU-1 SVE June 2021 GAC Summary
Attachments: Omega OU-1 SVE GAC Changeout Assessment_June 2021.xlsx

Team,

We evaluated the performance of the GAC used by the OU-1 SVE system for the month of June 2021, relative to the conditions listed in the Health Risk Assessment (HRA) (CDM Smith 2015). These conditions must be met to remain in substantive compliance with SCAQMD requirements.

During the month of June, the OU-1 SVE system met the conditions presented in the HRA and is therefore substantively compliant:

- None of the toxic air contaminants listed in Condition #14 of the HRA were detected in the effluent above their respective effluent limit.
- The OU-1 SVE system did not meet the two criteria for replacement of the lead GAC vessel (listed under Condition #12 of the HRA), and therefore no GAC replacement was required.
- No other carcinogenic air contaminants beyond those listed in Condition #14 of the HRA were detected in effluent above 10 ppbv, and therefore per Condition #16, no toxic risk assessment was required.

We also evaluated all the analytical and PID data and, based on our professional judgement, we do not recommend a voluntary changeout of the lead vessel GAC at this time.

OU-1 SVE GAC Assessment – Based on Samples Collected June 4, 2021					
	Concentration (ppbv)				
Parameter	**Influent**	**Midpoint**	**Effluent**	**HRA Effluent Limit**	**Below 2015 HRA Limit?**
1,1,1-Trichloroethane (TCA)	2.5	3.3	ND	34	Yes
1,1-Dichloroethane	ND	ND	ND	15	Yes
1,1-Dichloroethene	1.2	1.4	1.3	1,243	Yes
1,2-Dichloroethane	ND	ND	ND	14	Yes
Benzene	ND	ND	ND	65	Yes
Carbon disulfide	ND	ND	4.9	1,007	Yes
Chloroform	ND	ND	ND	48	Yes
Freon 11	ND	ND	1	1,801	Yes
Freon 113	4.5	5.7	0.98	9,799	Yes
Freon 12	ND	ND	ND	775	Yes
Isopropyl Alcohol (Isopropanol)	4.2	17	7.4	60	Yes
Methyl ethyl ketone	7.2	ND	14	75	Yes
Methylene chloride	ND	ND	ND	1,082	Yes

o-Xylene	ND	ND	ND	21	Yes
Tetrachloroethene (PCE)	58	2	17	2,208	Yes
TNMOC ref. to Heptane (MW=100)	240	37	170	17,405	Yes
Toluene	ND	ND	ND	47	Yes
Trichloroethene (TCE)	3.6	1.2	ND	198	Yes
Vinyl chloride	ND	ND	ND	84	Yes

Please let us know if there are any questions or if you would like to discuss the data further. Have a great day.

Maria Day
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ATTACHMENT B

Summary of VEW and DPE Concentrations and Operational Data

Attachment B, Table B-1
VEW / DPE Quarterly Operational Summary and Calculated Mass Removed
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site
Second Quarter 2021

Location	Measurement Date	Shallow / Deep	Flow (SCFM)	PID (ppmv)	Analytical Total VOCs[2] (ug/m3)	Temperature (deg. F)	Vacuum (in H_2O, gauge)	Relative Humidity (%)	Calculated Mass Removed[1] (lbs)
VE-1S	4/16/2021	SHALLOW	17.0	0.3	--	73.9	-18.0	48.5	--
	5/7/2021	SHALLOW	19.2	0.2		80.5	-13.0	38.3	
	6/4/2021	SHALLOW	14.0	0.2		83.8	-16.0	57.6	
VE-5S	4/16/2021	SHALLOW	31.0	0.6	--	73.9	-62.0	47.0	--
	5/7/2021	SHALLOW	28.5	0.2		82.8	-41.0	35.0	
	6/4/2021	SHALLOW	34.0	0.2		85.1	-40.0	43.9	
VE-6S	4/16/2021	SHALLOW	66.0	0.6	--	73.7	-20.0	47.0	--
	5/7/2021	SHALLOW	41.0	0.3		82.2	-20.3	37.2	
	6/4/2021	SHALLOW	68.0	0.3		85.0	-22.0	45.1	
VE-8S	4/16/2021	SHALLOW	163.0	0.7	--	76.4	-40.0	46.4	--
	5/7/2021	SHALLOW	175.1	0.8		83.4	-40.0	33.9	
	6/4/2021	SHALLOW	182.0	0.4		85.8	-37.0	42.6	
VE-9S	4/16/2021	SHALLOW	46.0	0.8	--	73.8	-41.0	55.8	--
	5/7/2021	SHALLOW	54.7	0.4		82.4	-40.8	33.1	
	6/4/2021	SHALLOW	47.0	0.4		83.6	-40.0	46.1	
VE-10S	4/16/2021	SHALLOW	32.0	0.6	--	74.2	-40.0	46.5	--
	5/7/2021	SHALLOW	35.3	0.3		83.7	-40.0	34.1	
	6/4/2021	SHALLOW	38.0	0.3		85.1	-38.0	45.5	
VE-11S	4/16/2021	SHALLOW	105.0	0.6	--	74.3	-30.0	48.3	--
	5/7/2021	SHALLOW	57.3	0.2		82.6	-37.8	34.3	
	6/4/2021	SHALLOW	108.0	0.3		85.4	-33.0	49.9	
VE-12S	4/16/2021	SHALLOW	38.0	0.3	--	73.8	-32.0	47.4	--
	5/7/2021	SHALLOW	16.4	0.2		82.4	-25.0	33.4	
	6/4/2021	SHALLOW	23.0	0.2		84.5	-28.0	50.4	
VE-14S	4/16/2021	SHALLOW	--	0.7	--	73.8	-18.0	46.3	--
	5/7/2021[4]	SHALLOW	--	--		--	--	--	
	6/4/2021	SHALLOW	57.0	0.5		84.8	-22.0	50.3	
VE-15S	4/16/2021	SHALLOW	29.0	0.3	--	74.1	-24.0	46.4	--
	5/7/2021[4]	SHALLOW	--	--		--	--	--	
	6/4/2021	SHALLOW	--	0.2		83.4	-32.0	50.9	

Attachment B, Table B-1
VEW / DPE Quarterly Operational Summary and Calculated Mass Removed
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site
Second Quarter 2021

Location	Measurement Date	Shallow / Deep	Flow (SCFM)	PID (ppmv)	Analytical Total VOCs[2] (ug/m3)	Temperature (deg. F)	Vacuum (in H_2O, gauge)	Relative Humidity (%)	Calculated Mass Removed[1] (lbs)
DPE-3	4/16/2021	DEEP	108.0	1.5	--	74.1	-36.0	45.4	--
	5/7/2021	DEEP	115.3	1.9		81.4	-41.0	35.7	
	6/4/2021	DEEP	107.0	0.8		83.0	-38.0	50.4	
DPE-4	4/16/2021	DEEP	85.0	0.7	--	73.1	-20.0	49.4	--
	5/7/2021	DEEP	87.6	0.9		81.3	-25.4	36.6	
	6/4/2021	DEEP	90.0	0.3		81.9	-20.0	51.7	
DPE-5	4/16/2021	DEEP	104.0	0.6	--	73.7	-42.0	58.4	--
	5/7/2021	DEEP	109.4	--		82.1	-41.5	33.8	
	6/4/2021	DEEP	112.0	0.3		79.6	-42.0	51.2	
DPE-8	4/16/2021	DEEP	79.0	0.6	--	73.9	-28.0	47.2	--
	5/7/2021	DEEP	78.2	1.0		73.8	-36.5	43.5	
	6/4/2021	DEEP	84.0	0.4		77.9	-30.0	52.7	
DPE-9	4/16/2021	DEEP	78.0	0.5	--	73.5	-36.0	50.3	--
	5/7/2021	DEEP	80.1	0.9		76.8	-18.5	41.4	
	6/4/2021	DEEP	92.0	0.3		78.6	-36.0	61.0	
VE-2D	4/16/2021	DEEP	129.0	8.2	--	77.5	-26.7	44.3	--
	5/7/2021	DEEP	125.8	2.8		84.9	-38.7	32.1	
	6/4/2021	DEEP	86.0	3.7		85.0	-27.3	46.4	
VE-14D	4/16/2021	DEEP	83.0	0.6	--	73.1	-22.0	49.6	--
	5/7/2021	DEEP	82.2	0.7		80.6	-22.5	37.5	
	6/4/2021	DEEP	93.0	0.3		80.4	-22.0	54.8	

Notes:

DPE = dual phase extraction

ppmv = parts per million by volume

VOC = volatile organic compound

F = Fahrenheit

SCFM = standard cubic feet per minute

Shallow = between 0 and 30 feet below ground surface

lbs = pounds

ug/m3 = micrograms per liter

Deep = between approximately 30 and 100 feet below ground surface

PID = photoionization detector

VE = vapor extraction

-- = Not measured

in H_2O, gauge = inches of water pressure, relative to atmospheric pressure; a negative gauge pressure is considered vaccum

1. Calculations are based on a subset of total VOC data from laboratory analyses of vapor samples, when collected, and measured flow rates from individual VEWs and the total system influent. Mass calculations are rounded to nearest 0.1 pound. If less than 0.05 pounds were calculated for the period, this will show as 0.0 pounds. VOCs that are not detected above the RLs are not included in the mass calculation. VEWs are not required to be sampled each quarter. If VEWs are sampled, it is based on operational considerations and to assist in mass calculations. All VEWs are sampled once per year.

2. A subset of VOC data used in mass removed calculations. TVOC concentrations are calculated using the detected concentrations from the following compounds: Tetrachloroethene (PCE), Trichloroethene (TCE), 1,1-Dichloroethene, Vinyl chloride, 1,1,1-Trichloroethane (TCA), 1,1-Dichloroethane, 1,2-Dichloroethane, Chloroform, Methylene chloride, Freon 11, Freon 12, Freon 113, Benzene, Toluene, o-Xylene, Carbon disulfide, Methyl ethyl ketone, Isopropyl Alcohol (Isopropanol), which account for approximately 98% of compounds in the data stream. No samples collected this quarter.

3. Only VE and DPE wells connected to the OU-1 SVE System are presented.

4. No data were collected for VE-14S and VE-15S as the extraction wells were closed during the monitoring event on May 7, 2021 (due to EPA-approved operational cycling).

ATTACHMENT C

Summary of Vapor Monitoring Probe Concentrations and Vacuum

Attachment C, Table C-1
Shallow Vapor Monitoring Probe Vacuum Summary
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site
Second Quarter 2021

Location	Monitoring Point Depth (feet bgs)	Vapor Extraction Well ROI[1]	Measurement Date	Vacuum[2,3] (in H_2O, gauge)
VE-1M	36[4]	VE-1S, VE-5S	4/16/2021	-0.62
VE-2S	22	VE-1S, VE-5S	4/16/2021	-0.15
VE-4S	22	VE-1S, VE-5S	4/16/2021	-0.32
VE-5M	36[4]	VE-5S	4/16/2021	-0.96
VE-7S	30	VE-8S	4/16/2021	-0.32
VMP-11	30	VE-10S, VE-12S	4/12/2021	-0.57
VMP-12	30	VE-10S, VE-11S	4/12/2021	-1.24
VMP-13	30	VE-31S	4/13/2021	-0.45
VMP-14	30		4/13/2021	-0.23
VMP-15	30	VE-10S, VE-9S	4/12/2021	-0.77
VMP-16	30	VE-11S	4/12/2021	-0.77
VMP-17	30		4/12/2021	-1.31
VMP-18	30	VE-15S	4/12/2021	-0.04
VMP-20	30	VE-5S, VE-8S	4/16/2021	-0.14
VMP-21	30	VE-15S	4/16/2021	-0.15
VMP-22	30		4/16/2021	-0.24
VMP-23	30		4/12/2021	-0.02
VMP-24	30		4/12/2021	-0.07
VMP-25	30		4/12/2021	0.00
VMP-26	30	VE-14S	4/16/2021	-0.05
VMP-27	30	VE-14S	4/16/2021	-0.03
VMP-31	6	VE-21S	4/12/2021	-0.02
	12	VE-21S	4/12/2021	-0.03
	24	VE-21S	4/12/2021	-0.07
VMP-32	6	VE-39S	4/12/2021	-0.04
	12	VE-39S	4/12/2021	-0.05
	24	VE-39S	4/12/2021	-1.09
VMP-43	6	VE-31S	4/13/2021	-0.43
	12	VE-31S	4/13/2021	-0.43
	24	VE-31S	4/13/2021	-0.47
VMP-94	6	VE-31S	4/13/2021	-0.21
	12	VE-31S	4/13/2021	-0.25
	24	VE-31S	4/13/2021	-0.37

Notes:

bgs = below ground surface

1. ROI = Estimated design radius of influence by the vapor extraction well (VEW) listed. If no VEW is listed, then the VMP is not within the design ROI of a VEW.

2. in H2O, gauge = inches of water pressure relative to atmospheric pressure. A negative gauge pressure is considered vacuum.

3. Yellow highlighted cells indicate a VMP within the design ROI of a VEW that did not meet the target vacuum of -0.1 in H2O at the time the monitoring was conducted.

4.These wells are considered part of shallow vapor monitoring as their well screen intervals are 26 - 36 feet below ground surface.

Attachment C, Table C-2
Deep Vapor Monitoring Probe Vacuum Summary
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site
Second Quarter 2021

Location	Monitoring Point Depth (feet bgs)	Vapor Extraction Well ROI[1]	Measurement Date	Vacuum[2,3] (in H_2O, gauge)
VMP-1D	70	DPE-8	4/16/2021	-0.75
VMP-3D	70	VE-2D	4/16/2021	-0.48
VMP-4D	70	DPE-3, VE-2D	4/16/2021	-1.92
VMP-5	45	VE-2D	4/16/2021	-0.27
VMP-31	40	VE-6D	4/12/2021	0.00
	55	VE-6D	4/12/2021	0.00
	60	VE-6D	4/12/2021	-0.15
	70	VE-6D	4/12/2021	0.00
VMP-32	40	VE-10D	4/12/2021	-0.28
	55	VE-10D	4/12/2021	-0.29
	60	VE-10D	4/12/2021	-0.10
	70	VE-10D	4/12/2021	-0.11
VMP-92	50	DPE-5	4/12/2021	-0.36
	60	DPE-5	4/12/2021	-0.89
	70	DPE-5	4/12/2021	-0.09
VMP-93	50		4/12/2021	-1.25
	60		4/12/2021	-1.19
	70		4/12/2021	-1.24
VMP-94	40	DPE-4, VE-14D	4/13/2021	-0.42
	50	DPE-4, VE-14D	4/13/2021	-0.58
	60	DPE-4, VE-14D	4/13/2021	-1.21
	70	DPE-4, VE-14D	4/13/2021	-0.15
VMP-95	50		4/13/2021	-8.61
	60		4/13/2021	-0.86
	70		4/13/2021	-1.36

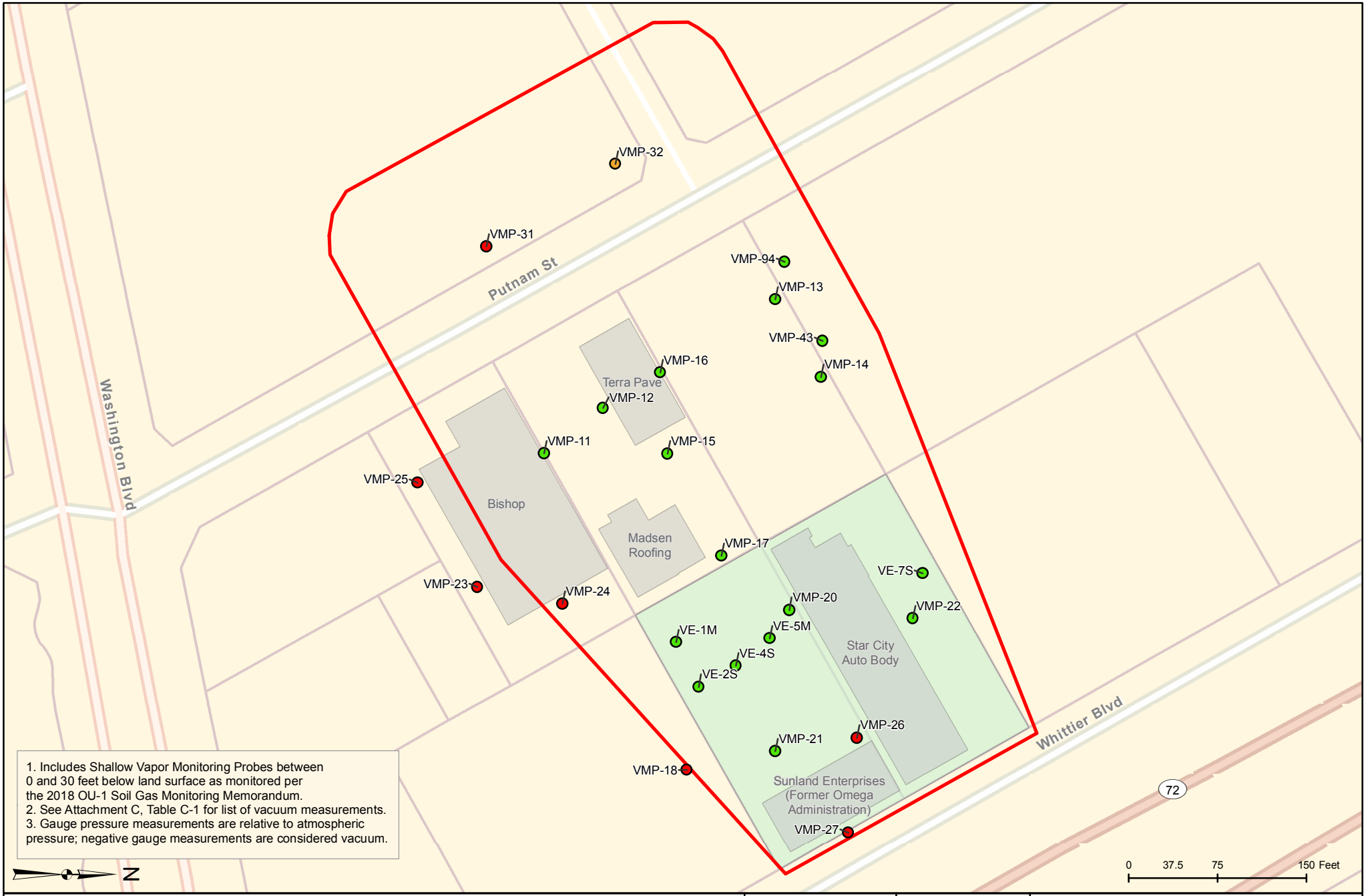
Notes:

bgs = below ground surface

1. ROI = Estimated design radius of influence by the vapor extraction well (VEW) listed. If no VEW is listed, then the VMP is not within the design ROI of a VEW.

2. in H2O, gauge = inches of water pressure relative to atmospheric pressure. A negative gauge pressure is considered vacuum.

3. Yellow highlighted cells indicate a VMP within the design ROI of a VEW that did not meet the target vacuum of -0.1 in H2O at the time the monitoring was conducted.



Vacuum

- < -0.1 in H2O (gauge) at all depths
- > -0.1 in H2O (gauge) at some depths
- > -0.1 in H2O (gauge) at all depths
- no vacuum data available

- OU-1 Boundary
- Building Currently Commercially/Industrially Occupied
- Building Currently Vacant
- Former Omega Chemical Property Boundary

ddms
de maximis, inc.

Reviewed By: MS
Drawn By: KM
Date: 7/13/2021

Attachment C, Figure C-1
Vacuum Influence at
Shallow Vapor Monitoring Probes
OU-1 Full Scale On-Site Soil Remedy,
Omega Chemical Superfund Site
Second Quarter 2021

Vacuum

- achieves target vacuum at all depths
- achieves target vacuum at some depths
- does not achieve target vacuum
- no vacuum data available

- OU-1 Boundary
- Building Currently Commercially/Industrially Occupied
- Building Currently Vacant
- Former Omega Chemical Property Boundary

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de maximis, inc.

Reviewed By: MS
Drawn By: KM
Date: 7/13/2021

Attachment C, Figure C-2
Vacuum Influence at
Deep Vapor Monitoring Probes
OU-1 Full Scale On-Site Soil Remedy,
Omega Chemical Superfund Site
Second Quarter 2021

ATTACHMENT E

Field Forms

VAPOR PROBE MONITORING FORM

Omega - VMP Monitoring Q2

Date: 4/12, 4/13, 4/16

Technician: K. Acha, R. Barclay

WELL ID	Purge Volume (Liters) Recomm / Actual	Purge Time (min) Recomm / Actual	Flow Rate (L/min) Recomm / Actual	Vacuum Exerted ("Hg) <7.36"Hg	Date	Time	Observed Vacuum ("H2O)	Take Sample? (Y/N)	Notes
BISHOP									
12519 Putnam St, Whittier, CA									
VMP-23-30					4/12/21	1332	~~-0.066~~	N	-0.022
VMP-24-30					"	1332	-0.066	N	
VMP-25-30					"	1335	-0.004	N	
KAISER PERMANENTE MEDICAL OFFICES									
12470 Whittier Blvd, Whittier, CA									
VMP-43-6					4/13/21	0837	-0.432	N	
VMP-43-12					"	0838	-0.425	N	
VMP-43-24					"	0839	-0.470	N	
VMP-94-6					4/13/21	0828	-0.211	N	
VMP-94-12						0829	-0.251	N	
VMP-94-24						0830	-0.367	N	
VMP-94-40						0832	-0.421	N	
VMP-94-50						0833	-0.577	N	
VMP-94-60						0834	-1.214	N	
VMP-94-70						0835	-0.146	N	
VMP-95-50						0842	-8.612	N	
VMP-95-60						0843	-0.864	N	
VMP-95-70						0844	-1.357	N	
ROP AND WCCS (FORMER)									
12519 Washington Blvd, Whittier, CA									
VMP-31-6					4/12/21	0849	-0.018	N	
VMP-31-12					4/12/21	0851	-0.031	N	
VMP-31-24					4/12/21	0852	-0.068	N	
VMP-31-40					4/12/21	0900	Ø	N	
VMP-31-55					4/12/21	0901	Ø	N	
VMP-31-60					4/12/21	0902	-0.151	N	
VMP-31-70					4/12/21	0903	Ø	N	
VMP-32-6					4/12/21	0836	-0.035	N	
VMP-32-12					4/12/21	0838	-0.049	N	

VMP-32-24	"	"	"	"	4/12/21	0840	-1.087	N	
VMP-32-40	"	"	"	"	4/12/21	0844	-0.275	N	
VMP-32-55	"	"	"	"	4/12/21	0842	-0.294	N	
VMP-32-60	"	"	"	"	4/12/21	0847	-0.096	N	
VMP-32-70	"	"	"	"	4/12/21	0950	-0.106	N	
SKATELAND (FORMER)									
12520 Whittier Blvd, Whittier, CA									
VMP-18-30	"	"	"	"	4/12/21	0752	-0.037	N	
STAR CITY AUTO BODY									
12504 Whittier Blvd, Whittier, CA									
VE-7S					4/16/21	1127	-0.315	N	
VMP-22-30						1117	-0.235	N	
VMP-3D						1122	-0.478	N	
VMP-4D						1135	-1.922	N	
VMP-5-45						1125	-0.265	N	
TERRA PAVE									
12511 Putnam St, Whittier, CA									
VMP-11-30	"	"	"	"	4/12/21	1210	-0.566	N	
VMP-12-30	"	"	"	"	4/12/21	1242	-1.238	N	
VMP-13-30					4/13/21	0951	-0.454	N	
VMP-14-30					4/13/21	0958	-0.229	N	
VMP-15-30	"	"	"	"	4/12/21	1218	-0.767	N	
VMP-16-30	"	"	"	"		1226	-0.769	N	
VMP-17-30	"	"	"	"		1222	-1.313	N	
VMP-92-50	"	"	"	"		1213	-0.364	N	
VMP-92-60	"	"	"	"		1215	-0.888	N	
VMP-92-70	"	"	"	"		1216	-0.090	N	
VMP-93-50	"	"	"	"		1235	-1.248	N	
VMP-93-60	"	"	"	"		1237	-1.186	N	
VMP-93-70	"	"	"	"		1239	-1.235	N	
THREE KINGS CONSTRUCTION (FORMER)									
12512 Whittier Blvd, Whittier, CA									
VE-1M					4/16/21	0800	-0.622	N	
VE-2S					4/16/21	0803	-0.150	N	
VE-4S					4/16/21	0805	-0.324	N	
VE-5M					4/16/21	0809	-0.961	N	
VMP-1D					4/16/21	0807	-0.745	N	
VMP-20-30					4/16/21	0810	-0.140	N	
VMP-21-30					4/16/21	0755	-0.146	N	

VMP-26-30					4/16/21	0757	-0.048	N	
VMP-27-30					4/16/21	0752	-0.033	N	

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4/26/2021
Ms. Jaime Dinello
DeMaximis, Inc
1340 Reynolds Ave, Suite 105

Irvine CA 92614

Project Name: Omega - OU1 SVE Monthly GAC Sampling
Project #:
Workorder #: 2104386

Dear Ms. Jaime Dinello

The following report includes the data for the above referenced project for sample(s) received on 4/19/2021 at Eurofins Air Toxics LLC.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics LLC. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kathleen Kaneko at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Kathleen Kaneko

Project Manager

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WORK ORDER #: 2104386

Work Order Summary

CLIENT:	Ms. Jaime Dinello DeMaximis, Inc 1340 Reynolds Ave, Suite 105 Irvine, CA 92614	**BILL TO:**	Mr. Tom Dorsey Omega Chemical Site Environmental Remediation Trust 1322 Scott St. Suite 104
PHONE:	949.679.9290	**P.O. #**	
FAX:	949.679.9078	**PROJECT #**	Omega - OU1 SVE Monthly GAC Sampling
DATE RECEIVED:	04/19/2021	**CONTACT:**	Kathleen Kaneko
DATE COMPLETED:	04/26/2021		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	OC_SVE_EFF_GAC_041621	TO-15	5.7 "Hg	10 psi
02A	OC_SVE_MID_GAC_041621	TO-15	5.9 "Hg	10 psi
03A	OC_SVE_INF_GAC_041621	TO-15	5.1 "Hg	9.9 psi
04A	Lab Blank	TO-15	NA	NA
05A	CCV	TO-15	NA	NA
06A	LCS	TO-15	NA	NA
06AA	LCSD	TO-15	NA	NA

CERTIFIED BY: Heidi Hayes DATE: 04/26/21

Technical Director

Certification numbers: AZ Licensure AZ0775, FL NELAP – E87680, LA NELAP – 02089, NH NELAP - 209220, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-20-16, UT NELAP – CA009332020-12, VA NELAP - 10615, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005-014, Effective date: 10/18/2020, Expiration date: 10/17/2021.
Eurofins Air Toxics, LLC certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 351-8279

LABORATORY NARRATIVE
EPA Method TO-15
DeMaximis, Inc
Workorder# 2104386

Three 1 Liter Summa Canister samples were received on April 19, 2021. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

A single point calibration for TNMOC referenced to Heptane was performed for each daily analytical batch. Recovery is reported as 100% in the associated results for each CCV.

The TNMOC concentration was calculated by taking the total area counts in the sample and quantitating the area based on the response factor of Heptane.

Definition of Data Qualifying Flags

Ten qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

M - Reported value may be biased due to apparent matrix interferences.

CN - See Case Narrative.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_SVE_EFF_GAC_041621

Lab ID#: 2104386-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.0	1.8	5.8	10
Freon 113	1.0	1.8	7.9	14
1,1-Dichloroethene	1.0	1.1	4.1	4.2
2-Butanone (Methyl Ethyl Ketone)	4.1	43	12	130
Benzene	1.0	1.2	3.3	3.7
Trichloroethene	1.0	1.2	5.6	6.8
Tetrachloroethene	1.0	37	7.0	250
TNMOC ref. to Heptane (MW=100)	21	820	85	3400

Client Sample ID: OC_SVE_MID_GAC_041621

Lab ID#: 2104386-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.0	1.5	5.9	8.5
Freon 113	1.0	7.6	8.0	58
1,1-Dichloroethene	1.0	1.6	4.1	6.5
2-Propanol	4.2	5.2	10	13
2-Butanone (Methyl Ethyl Ketone)	4.2	15	12	44
1,1,1-Trichloroethane	1.0	4.3	5.7	24
Trichloroethene	1.0	1.2	5.6	6.2
Tetrachloroethene	1.0	4.4	7.1	30
TNMOC ref. to Heptane (MW=100)	21	130	85	530

Client Sample ID: OC_SVE_INF_GAC_041621

Lab ID#: 2104386-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.0	1.2	5.7	6.7
Freon 113	1.0	4.0	7.7	31
1,1-Dichloroethene	1.0	1.4	4.0	5.6
2-Butanone (Methyl Ethyl Ketone)	4.0	12	12	34
1,1,1-Trichloroethane	1.0	2.1	5.5	11
Trichloroethene	1.0	3.6	5.4	19

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_SVE_INF_GAC_041621

Lab ID#: 2104386-03A

Toluene	1.0	2.6	3.8	9.8
Tetrachloroethene	1.0	57	6.8	390
TNMOC ref. to Heptane (MW=100)	20	350	83	1400

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Client Sample ID: OC_SVE_EFF_GAC_041621

Lab ID#: 2104386-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p042109**	**Date of Collection:**	**4/16/21 9:55:00 AM**
Dil. Factor:	**2.07**	**Date of Analysis:**	**4/21/21 03:13 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.0	Not Detected	5.1	Not Detected
Vinyl Chloride	1.0	Not Detected	2.6	Not Detected
Freon 11	1.0	1.8	5.8	10
Freon 113	1.0	1.8	7.9	14
1,1-Dichloroethene	1.0	1.1	4.1	4.2
2-Propanol	4.1	Not Detected	10	Not Detected
Carbon Disulfide	4.1	Not Detected	13	Not Detected
Methylene Chloride	10	Not Detected	36	Not Detected
Hexane	1.0	Not Detected	3.6	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.2	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.1	43	12	130
Chloroform	1.0	Not Detected	5.0	Not Detected
1,1,1-Trichloroethane	1.0	Not Detected	5.6	Not Detected
Carbon Tetrachloride	1.0	Not Detected	6.5	Not Detected
Benzene	1.0	1.2	3.3	3.7
1,2-Dichloroethane	1.0	Not Detected	4.2	Not Detected
Trichloroethene	1.0	1.2	5.6	6.8
1,4-Dioxane	4.1	Not Detected	15	Not Detected
Toluene	1.0	Not Detected	3.9	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.6	Not Detected
Tetrachloroethene	1.0	37	7.0	250
o-Xylene	1.0	Not Detected	4.5	Not Detected
TNMOC ref. to Heptane (MW=100)	21	820	85	3400

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	97	70-130
1,2-Dichloroethane-d4	104	70-130
4-Bromofluorobenzene	108	70-130

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Client Sample ID: OC_SVE_MID_GAC_041621

Lab ID#: 2104386-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p042110**	**Date of Collection:**	**4/16/21 9:57:00 AM**
Dil. Factor:	**2.09**	**Date of Analysis:**	**4/21/21 03:42 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.0	Not Detected	5.2	Not Detected
Vinyl Chloride	1.0	Not Detected	2.7	Not Detected
Freon 11	1.0	1.5	5.9	8.5
Freon 113	1.0	7.6	8.0	58
1,1-Dichloroethene	1.0	1.6	4.1	6.5
2-Propanol	4.2	5.2	10	13
Carbon Disulfide	4.2	Not Detected	13	Not Detected
Methylene Chloride	10	Not Detected	36	Not Detected
Hexane	1.0	Not Detected	3.7	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.2	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.2	15	12	44
Chloroform	1.0	Not Detected	5.1	Not Detected
1,1,1-Trichloroethane	1.0	4.3	5.7	24
Carbon Tetrachloride	1.0	Not Detected	6.6	Not Detected
Benzene	1.0	Not Detected	3.3	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.2	Not Detected
Trichloroethene	1.0	1.2	5.6	6.2
1,4-Dioxane	4.2	Not Detected	15	Not Detected
Toluene	1.0	Not Detected	3.9	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.7	Not Detected
Tetrachloroethene	1.0	4.4	7.1	30
o-Xylene	1.0	Not Detected	4.5	Not Detected
TNMOC ref. to Heptane (MW=100)	21	130	85	530

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	109	70-130
4-Bromofluorobenzene	105	70-130

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Client Sample ID: OC_SVE_INF_GAC_041621

Lab ID#: 2104386-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p042111**	**Date of Collection: 4/16/21 9:58:00 AM**	
Dil. Factor:	**2.02**	**Date of Analysis: 4/21/21 04:11 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.0	Not Detected	5.0	Not Detected
Vinyl Chloride	1.0	Not Detected	2.6	Not Detected
Freon 11	1.0	1.2	5.7	6.7
Freon 113	1.0	4.0	7.7	31
1,1-Dichloroethene	1.0	1.4	4.0	5.6
2-Propanol	4.0	Not Detected	9.9	Not Detected
Carbon Disulfide	4.0	Not Detected	12	Not Detected
Methylene Chloride	10	Not Detected	35	Not Detected
Hexane	1.0	Not Detected	3.6	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.0	12	12	34
Chloroform	1.0	Not Detected	4.9	Not Detected
1,1,1-Trichloroethane	1.0	2.1	5.5	11
Carbon Tetrachloride	1.0	Not Detected	6.4	Not Detected
Benzene	1.0	Not Detected	3.2	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.1	Not Detected
Trichloroethene	1.0	3.6	5.4	19
1,4-Dioxane	4.0	Not Detected	14	Not Detected
Toluene	1.0	2.6	3.8	9.8
1,1,2-Trichloroethane	1.0	Not Detected	5.5	Not Detected
Tetrachloroethene	1.0	57	6.8	390
o-Xylene	1.0	Not Detected	4.4	Not Detected
TNMOC ref. to Heptane (MW=100)	20	350	83	1400

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	104	70-130
4-Bromofluorobenzene	110	70-130

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Client Sample ID: Lab Blank

Lab ID#: 2104386-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p042106d**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/21/21 12:52 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
TNMOC ref. to Heptane (MW=100)	10	Not Detected	41	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	108	70-130
4-Bromofluorobenzene	102	70-130

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Client Sample ID: CCV

Lab ID#: 2104386-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p042102**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/21/21 10:25 AM**	

Compound	%Recovery
Freon 12	120
Vinyl Chloride	107
Freon 11	116
Freon 113	102
1,1-Dichloroethene	100
2-Propanol	80
Carbon Disulfide	92
Methylene Chloride	89
Hexane	90
1,1-Dichloroethane	97
2-Butanone (Methyl Ethyl Ketone)	91
Chloroform	112
1,1,1-Trichloroethane	108
Carbon Tetrachloride	112
Benzene	104
1,2-Dichloroethane	123
Trichloroethene	109
1,4-Dioxane	99
Toluene	103
1,1,2-Trichloroethane	107
Tetrachloroethene	117
o-Xylene	108
TNMOC ref. to Heptane (MW=100)	100

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	108	70-130
4-Bromofluorobenzene	113	70-130

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Client Sample ID: LCS

Lab ID#: 2104386-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p042103**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/21/21 10:54 AM**	

Compound	%Recovery	Method Limits
Freon 12	128	70-130
Vinyl Chloride	113	70-130
Freon 11	120	70-130
Freon 113	109	70-130
1,1-Dichloroethene	114	70-130
2-Propanol	90	70-130
Carbon Disulfide	100	70-130
Methylene Chloride	92	70-130
Hexane	94	70-130
1,1-Dichloroethane	102	70-130
2-Butanone (Methyl Ethyl Ketone)	98	70-130
Chloroform	118	70-130
1,1,1-Trichloroethane	114	70-130
Carbon Tetrachloride	121	70-130
Benzene	107	70-130
1,2-Dichloroethane	123	70-130
Trichloroethene	109	70-130
1,4-Dioxane	96	70-130
Toluene	104	70-130
1,1,2-Trichloroethane	104	70-130
Tetrachloroethene	117	70-130
o-Xylene	108	70-130
TNMOC ref. to Heptane (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	114	70-130
4-Bromofluorobenzene	112	70-130

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Client Sample ID: LCSD

Lab ID#: 2104386-06AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p042104**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/21/21 11:23 AM**	

Compound	%Recovery	Method Limits
Freon 12	122	70-130
Vinyl Chloride	113	70-130
Freon 11	117	70-130
Freon 113	103	70-130
1,1-Dichloroethene	110	70-130
2-Propanol	86	70-130
Carbon Disulfide	94	70-130
Methylene Chloride	90	70-130
Hexane	93	70-130
1,1-Dichloroethane	98	70-130
2-Butanone (Methyl Ethyl Ketone)	95	70-130
Chloroform	113	70-130
1,1,1-Trichloroethane	109	70-130
Carbon Tetrachloride	116	70-130
Benzene	106	70-130
1,2-Dichloroethane	122	70-130
Trichloroethene	109	70-130
1,4-Dioxane	95	70-130
Toluene	101	70-130
1,1,2-Trichloroethane	107	70-130
Tetrachloroethene	118	70-130
o-Xylene	110	70-130
TNMOC ref. to Heptane (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	107	70-130
4-Bromofluorobenzene	115	70-130

Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: (714) 895-5494 . FAX: (714) 894-7501

2104386

AIR CHAIN OF CUSTODY RECORD

DATE: 04/16/21
PAGE: 1 OF 1

LABORATORY CLIENT: de maximis	CLIENT PROJECT NAME / NUMBER: Omega - OU1 SVE Monthly GAC Sampling	P.O. NO.:
ADDRESS: 1322 Scott St., Suite 104	PROJECT ADDRESS: 12520 Whittier Blvd.	LAB CONTACT OR QUOTE NO.:
CITY: San Diego STATE: CA ZIP: 92106	CITY: Whittier STATE: CA ZIP: 90602	
TEL: (562) 756-8149 EMAIL: jdinello@demaximis.com	PROJECT CONTACT: Trent henderson thenderson@jacobandhefner.com	LAB USE ONLY ☐☐-☐☐☐☐
TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☑ 5 DAYS ☐ 10 DAYS	SAMPLER(S): (NAME / SIGNATURE) Khalid Azhar	
SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY) ☑ EDD		
SPECIAL INSTRUCTIONS:		

LAB USE ONLY	SAMPLE ID	FIELD ID / Point of Collection	Air Type (I) Indoor (SV) Soil Vap. (A) Ambient	Sampling Equipment Info: Canister ID#	Canister Size 6L or 1L	Flow Controller ID#	Start Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	Stop Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	REQUESTED ANALYSES: TO-15 (TAL 2.3)
1	OC_SVE_EFF_GAC_041621	SP-EFF-GAC	SV	3022	1 L	20135	4/16/2021	0955	-28	4/16/2021	1003	-5	X
2	OC_SVE_MID_GAC_041621	SP-MID-GAC	SV	IL2667	1 L	22414	4/16/2021	0957	-27	4/16/2021	1002	-5	X
3	OC_SVE_INF_GAC_041621	SP-INF-GAC	SV	IL3082	1 L	24584	4/16/2021	0958	-27	4/16/2021	1004	-4	X
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													
15													

O1A
SRA
O3A

Fed Ex
Custody Seal Intact?
Y N None Temp NA

Relinquished by: (Signature)	Received by: (Signature)	Date: 4-19-21	Time: 0919
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

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5/25/2021
Ms. Jaime Dinello
DeMaximis, Inc
1340 Reynolds Ave, Suite 105

Irvine CA 92614

Project Name: Omega - OU1 SVE Monthly Sampling
Project #:
Workorder #: 2105272

Dear Ms. Jaime Dinello

The following report includes the data for the above referenced project for sample(s) received on 5/12/2021 at Eurofins Air Toxics LLC.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics LLC. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kathleen Kaneko at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Kathleen Kaneko

Project Manager

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WORK ORDER #: 2105272

Work Order Summary

CLIENT:	Ms. Jaime Dinello DeMaximis, Inc 1340 Reynolds Ave, Suite 105 Irvine, CA 92614	**BILL TO:**	Mr. Tom Dorsey Omega Chemical Site Environmental Remediation Trust 1322 Scott St. Suite 104
PHONE:	949.679.9290	**P.O. #**	
FAX:	949.679.9078	**PROJECT #**	Omega - OU1 SVE Monthly Sampling
DATE RECEIVED:	05/12/2021	**CONTACT:**	Kathleen Kaneko
DATE COMPLETED:	05/24/2021		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	OC_SVE_EFF_GAC_050721	TO-15	5.1 "Hg	9.9 psi
02A	OC_SVE_MID_GAC_050721	TO-15	5.5 "Hg	10 psi
03A	OC_SVE_INF_GAC_050721	TO-15	5.7 "Hg	10 psi
04A	Lab Blank	TO-15	NA	NA
05A	CCV	TO-15	NA	NA
06A	LCS	TO-15	NA	NA
06AA	LCSD	TO-15	NA	NA

CERTIFIED BY: Heidi Hayes DATE: 05/24/21

Technical Director

Certification numbers: AZ Licensure AZ0775, FL NELAP – E87680, LA NELAP – 02089, NH NELAP - 209220, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-20-16, UT NELAP – CA009332020-12, VA NELAP - 10615, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005-014, Effective date: 10/18/2020, Expiration date: 10/17/2021.
Eurofins Air Toxics, LLC certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 351-8279

LABORATORY NARRATIVE
EPA Method TO-15
DeMaximis, Inc
Workorder# 2105272

Three 1 Liter Silco Canister samples were received on May 12, 2021. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

A single point calibration for TNMOC referenced to Heptane was performed for each daily analytical batch. Recovery is reported as 100% in the associated results for each CCV.

The TNMOC concentration was calculated by taking the total area counts in the sample and quantitating the area based on the response factor of Heptane.

Definition of Data Qualifying Flags

Ten qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

M - Reported value may be biased due to apparent matrix interferences.

CN - See Case Narrative.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_SVE_EFF_GAC_050721

Lab ID#: 2105272-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.0	1.3	5.7	7.2
1,1-Dichloroethene	1.0	1.2	4.0	5.0
2-Butanone (Methyl Ethyl Ketone)	4.0	19	12	57
Trichloroethene	1.0	1.3	5.4	7.0
Tetrachloroethene	1.0	33	6.8	220
TNMOC ref. to Heptane (MW=100)	20	980	83	4000

Client Sample ID: OC_SVE_MID_GAC_050721

Lab ID#: 2105272-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.0	1.3	5.8	7.4
Freon 113	1.0	6.6	7.9	51
1,1-Dichloroethene	1.0	1.7	4.1	6.7
2-Butanone (Methyl Ethyl Ketone)	4.1	7.0	12	21
1,1,1-Trichloroethane	1.0	3.8	5.6	21
Tetrachloroethene	1.0	3.8	7.0	26

Client Sample ID: OC_SVE_INF_GAC_050721

Lab ID#: 2105272-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.0	1.2	5.8	7.0
Freon 113	1.0	4.9	7.9	38
1,1-Dichloroethene	1.0	1.8	4.1	7.1
2-Propanol	4.1	11	10	27
2-Butanone (Methyl Ethyl Ketone)	4.1	15	12	45
1,1,1-Trichloroethane	1.0	2.3	5.6	12
Trichloroethene	1.0	3.8	5.6	20
1,4-Dioxane	4.1	4.7	15	17
Tetrachloroethene	1.0	57	7.0	390
TNMOC ref. to Heptane (MW=100)	21	270	85	1100

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Client Sample ID: OC_SVE_EFF_GAC_050721

Lab ID#: 2105272-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3052223**	**Date of Collection:**	**5/7/21 9:45:00 AM**
Dil. Factor:	**2.02**	**Date of Analysis:**	**5/23/21 12:41 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.0	Not Detected	5.0	Not Detected
Vinyl Chloride	1.0	Not Detected	2.6	Not Detected
Freon 11	1.0	1.3	5.7	7.2
Freon 113	1.0	Not Detected	7.7	Not Detected
1,1-Dichloroethene	1.0	1.2	4.0	5.0
2-Propanol	4.0	Not Detected	9.9	Not Detected
Carbon Disulfide	4.0	Not Detected	12	Not Detected
Methylene Chloride	10	Not Detected	35	Not Detected
Hexane	1.0	Not Detected	3.6	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.0	19	12	57
Chloroform	1.0	Not Detected	4.9	Not Detected
1,1,1-Trichloroethane	1.0	Not Detected	5.5	Not Detected
Carbon Tetrachloride	1.0	Not Detected	6.4	Not Detected
Benzene	1.0	Not Detected	3.2	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.1	Not Detected
Trichloroethene	1.0	1.3	5.4	7.0
1,4-Dioxane	4.0	Not Detected	14	Not Detected
Toluene	1.0	Not Detected	3.8	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.5	Not Detected
Tetrachloroethene	1.0	33	6.8	220
o-Xylene	1.0	Not Detected	4.4	Not Detected
TNMOC ref. to Heptane (MW=100)	20	980	83	4000

Container Type: 1 Liter Silco Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	97	70-130
1,2-Dichloroethane-d4	104	70-130
4-Bromofluorobenzene	106	70-130

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Client Sample ID: OC_SVE_MID_GAC_050721

Lab ID#: 2105272-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3052224**	**Date of Collection:**	**5/7/21 9:50:00 AM**
Dil. Factor:	**2.06**	**Date of Analysis:**	**5/23/21 01:10 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.0	Not Detected	5.1	Not Detected
Vinyl Chloride	1.0	Not Detected	2.6	Not Detected
Freon 11	1.0	1.3	5.8	7.4
Freon 113	1.0	6.6	7.9	51
1,1-Dichloroethene	1.0	1.7	4.1	6.7
2-Propanol	4.1	Not Detected	10	Not Detected
Carbon Disulfide	4.1	Not Detected	13	Not Detected
Methylene Chloride	10	Not Detected	36	Not Detected
Hexane	1.0	Not Detected	3.6	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.2	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.1	7.0	12	21
Chloroform	1.0	Not Detected	5.0	Not Detected
1,1,1-Trichloroethane	1.0	3.8	5.6	21
Carbon Tetrachloride	1.0	Not Detected	6.5	Not Detected
Benzene	1.0	Not Detected	3.3	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.2	Not Detected
Trichloroethene	1.0	Not Detected	5.5	Not Detected
1,4-Dioxane	4.1	Not Detected	15	Not Detected
Toluene	1.0	Not Detected	3.9	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.6	Not Detected
Tetrachloroethene	1.0	3.8	7.0	26
o-Xylene	1.0	Not Detected	4.5	Not Detected
TNMOC ref. to Heptane (MW=100)	21	Not Detected	84	Not Detected

Container Type: 1 Liter Silco Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	104	70-130
4-Bromofluorobenzene	105	70-130

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Client Sample ID: OC_SVE_INF_GAC_050721

Lab ID#: 2105272-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3052225**	**Date of Collection:**	**5/7/21 9:55:00 AM**
Dil. Factor:	**2.07**	**Date of Analysis:**	**5/23/21 01:39 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.0	Not Detected	5.1	Not Detected
Vinyl Chloride	1.0	Not Detected	2.6	Not Detected
Freon 11	1.0	1.2	5.8	7.0
Freon 113	1.0	4.9	7.9	38
1,1-Dichloroethene	1.0	1.8	4.1	7.1
2-Propanol	4.1	11	10	27
Carbon Disulfide	4.1	Not Detected	13	Not Detected
Methylene Chloride	10	Not Detected	36	Not Detected
Hexane	1.0	Not Detected	3.6	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.2	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.1	15	12	45
Chloroform	1.0	Not Detected	5.0	Not Detected
1,1,1-Trichloroethane	1.0	2.3	5.6	12
Carbon Tetrachloride	1.0	Not Detected	6.5	Not Detected
Benzene	1.0	Not Detected	3.3	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.2	Not Detected
Trichloroethene	1.0	3.8	5.6	20
1,4-Dioxane	4.1	4.7	15	17
Toluene	1.0	Not Detected	3.9	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.6	Not Detected
Tetrachloroethene	1.0	57	7.0	390
o-Xylene	1.0	Not Detected	4.5	Not Detected
TNMOC ref. to Heptane (MW=100)	21	270	85	1100

Container Type: 1 Liter Silco Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	107	70-130
4-Bromofluorobenzene	104	70-130

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Client Sample ID: Lab Blank

Lab ID#: 2105272-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3052205**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/22/21 12:13 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
TNMOC ref. to Heptane (MW=100)	10	Not Detected	41	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	103	70-130

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Client Sample ID: CCV

Lab ID#: 2105272-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3052202**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 5/22/21 10:10 AM**

Compound	%Recovery
Freon 12	112
Vinyl Chloride	112
Freon 11	114
Freon 113	112
1,1-Dichloroethene	109
2-Propanol	99
Carbon Disulfide	103
Methylene Chloride	95
Hexane	98
1,1-Dichloroethane	102
2-Butanone (Methyl Ethyl Ketone)	100
Chloroform	108
1,1,1-Trichloroethane	108
Carbon Tetrachloride	114
Benzene	98
1,2-Dichloroethane	112
Trichloroethene	104
1,4-Dioxane	102
Toluene	97
1,1,2-Trichloroethane	105
Tetrachloroethene	110
o-Xylene	103
TNMOC ref. to Heptane (MW=100)	100

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	101	70-130
4-Bromofluorobenzene	103	70-130

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Client Sample ID: LCS

Lab ID#: 2105272-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3052203**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/22/21 10:37 AM**	

Compound	%Recovery	Method Limits
Freon 12	111	70-130
Vinyl Chloride	109	70-130
Freon 11	112	70-130
Freon 113	113	70-130
1,1-Dichloroethene	112	70-130
2-Propanol	99	70-130
Carbon Disulfide	103	70-130
Methylene Chloride	92	70-130
Hexane	100	70-130
1,1-Dichloroethane	101	70-130
2-Butanone (Methyl Ethyl Ketone)	100	70-130
Chloroform	108	70-130
1,1,1-Trichloroethane	108	70-130
Carbon Tetrachloride	112	70-130
Benzene	98	70-130
1,2-Dichloroethane	110	70-130
Trichloroethene	104	70-130
1,4-Dioxane	102	70-130
Toluene	96	70-130
1,1,2-Trichloroethane	104	70-130
Tetrachloroethene	110	70-130
o-Xylene	102	70-130
TNMOC ref. to Heptane (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	101	70-130
4-Bromofluorobenzene	104	70-130

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Client Sample ID: LCSD

Lab ID#: 2105272-06AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3052204**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/22/21 11:05 AM**	

Compound	%Recovery	Method Limits
Freon 12	110	70-130
Vinyl Chloride	109	70-130
Freon 11	111	70-130
Freon 113	113	70-130
1,1-Dichloroethene	113	70-130
2-Propanol	99	70-130
Carbon Disulfide	105	70-130
Methylene Chloride	92	70-130
Hexane	98	70-130
1,1-Dichloroethane	102	70-130
2-Butanone (Methyl Ethyl Ketone)	99	70-130
Chloroform	106	70-130
1,1,1-Trichloroethane	106	70-130
Carbon Tetrachloride	111	70-130
Benzene	98	70-130
1,2-Dichloroethane	108	70-130
Trichloroethene	103	70-130
1,4-Dioxane	102	70-130
Toluene	96	70-130
1,1,2-Trichloroethane	104	70-130
Tetrachloroethene	110	70-130
o-Xylene	101	70-130
TNMOC ref. to Heptane (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	105	70-130

2105272

Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: (714) 895-5494 , FAX: (714) 894-7501

AIR CHAIN OF CUSTODY RECORD

DATE: 05/07/21
PAGE: 1 OF 1

LABORATORY CLIENT: de maximis	CLIENT PROJECT NAME / NUMBER: Omega - OU1 SVE Monthly GAC Sampling	P.O. NO.:	
ADDRESS: 1322 Scott St., Suite 104	PROJECT ADDRESS: 12520 Whittier Blvd.	LAB CONTACT OR QUOTE NO.:	
CITY: San Diego / STATE: CA / ZIP: 92106	CITY: Whittier / STATE: CA / ZIP: 90602	LAB USE ONLY:	
TEL: (562) 756-8149 / EMAIL: jdinello@demaximis.com	PROJECT CONTACT: Trent henderson thenderson@jacobandhefner.com		

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☐ ~~10 DAYS~~ (Standard)

SAMPLER(S): (NAME / SIGNATURE) VAL FLOREA / Florea

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY): ☐ EDD

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES: TO-15 (TAL 2.3)

LAB USE ONLY	SAMPLE ID	FIELD ID / Point of Collection	Air Type: (I) Indoor (SV) Soil Vap. (A) Ambient	Sampling Equipment Info: Canister ID#	Canister Size 6L or 1L	Flow Controller ID#	Start Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	Stop Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	TO-15 (TAL 2.3)
1	OC_SVE_EFF_GAC_050721	SP-EFF-GAC	SV	LC046	1 L	25343	5/7/2021	0945	-29	5/7/2021	0945	-5	X
2	OC_SVE_MID_GAC_050721	SP-MID-GAC	SV	IL2204	1 L	30762	5/7/2021	0950	-30	5/7/2021	0950	-5	X
3	OC_SVE_INF_GAC_050721	SP-INF-GAC	SV	LC1178	1 L	24570	5/7/2021	0955	-27.5	5/7/2021	0955	-5	X
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													
15													

Custody Seal Intact? Y N None Temp NA

Relinquished by: (Signature) Florea	Received by: (Signature)	Date: 5/12/21	Time: 1352
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

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6/14/2021
Ms. Jaime Dinello
DeMaximis, Inc
1340 Reynolds Ave, Suite 105

Irvine CA 92614

Project Name: Omega - OU1 SVE Monthly GAC Sampling
Project #:
Workorder #: 2106174

Dear Ms. Jaime Dinello

The following report includes the data for the above referenced project for sample(s) received on 6/7/2021 at Eurofins Air Toxics LLC.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics LLC. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kathleen Kaneko at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Kathleen Kaneko

Project Manager

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WORK ORDER #: 2106174

Work Order Summary

CLIENT:	Ms. Jaime Dinello DeMaximis, Inc 1340 Reynolds Ave, Suite 105 Irvine, CA 92614	**BILL TO:**	Mr. Tom Dorsey Omega Chemical Site Environmental Remediation Trust 1322 Scott St. Suite 104
PHONE:	949.679.9290	**P.O. #**	
FAX:	949.679.9078	**PROJECT #**	Omega - OU1 SVE Monthly GAC Sampling
DATE RECEIVED:	06/07/2021	**CONTACT:**	Kathleen Kaneko
DATE COMPLETED:	06/14/2021		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	OC_SVE_EFF_GAC_060421	TO-15	4.0 "Hg	10 psi
02A	OC_SVE_MID_GAC_060421	TO-15	5.0 "Hg	10 psi
03A	OC_SVE_INF_GAC_060421	TO-15	5.0 "Hg	10 psi
04A	Lab Blank	TO-15	NA	NA
05A	CCV	TO-15	NA	NA
06A	LCS	TO-15	NA	NA
06AA	LCSD	TO-15	NA	NA

CERTIFIED BY: Heidi Hayes DATE: 06/14/21

Technical Director

Certification numbers: AZ Licensure AZ0775, FL NELAP – E87680, LA NELAP – 02089, NH NELAP - 209220, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-20-16, UT NELAP – CA009332020-12, VA NELAP - 10615, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005-014, Effective date: 10/18/2020, Expiration date: 10/17/2021.
Eurofins Air Toxics, LLC certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 351-8279

LABORATORY NARRATIVE
EPA Method TO-15
DeMaximis, Inc
Workorder# 2106174

Three 1 Liter Summa Canister samples were received on June 07, 2021. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

The NMOC (Non-Methane Organic Compounds) concentration was calculated by taking the total area counts in the sample and quantitating the area based on the response factor of Heptane.

Definition of Data Qualifying Flags

Ten qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

M - Reported value may be biased due to apparent matrix interferences.

CN - See Case Narrative.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_SVE_EFF_GAC_060421

Lab ID#: 2106174-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	0.97	1.0	5.4	5.7
Freon 113	0.97	0.98	7.4	7.5
1,1-Dichloroethene	0.97	1.3	3.8	5.2
2-Propanol	3.9	7.4	9.5	18
Carbon Disulfide	3.9	4.9	12	15
2-Butanone (Methyl Ethyl Ketone)	3.9	14	11	40
Tetrachloroethene	0.97	17	6.6	110
TNMOC ref. to Heptane (MW=100)	19	170	79	700

Client Sample ID: OC_SVE_MID_GAC_060421

Lab ID#: 2106174-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	1.0	5.7	7.7	44
1,1-Dichloroethene	1.0	1.4	4.0	5.6
2-Propanol	4.0	17	9.9	42
1,1,1-Trichloroethane	1.0	3.3	5.5	18
Trichloroethene	1.0	1.2	5.4	6.5
Tetrachloroethene	1.0	2.0	6.8	14
TNMOC ref. to Heptane (MW=100)	20	37	83	150

Client Sample ID: OC_SVE_INF_GAC_060421

Lab ID#: 2106174-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	1.0	4.5	7.7	35
1,1-Dichloroethene	1.0	1.2	4.0	4.8
2-Propanol	4.0	4.2	9.9	10
2-Butanone (Methyl Ethyl Ketone)	4.0	7.2	12	21
1,1,1-Trichloroethane	1.0	2.5	5.5	14
Trichloroethene	1.0	3.6	5.4	19
Tetrachloroethene	1.0	58	6.8	400
TNMOC ref. to Heptane (MW=100)	20	240	83	980

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_SVE_INF_GAC_060421

Lab ID#: 2106174-03A

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Client Sample ID: OC_SVE_EFF_GAC_060421

Lab ID#: 2106174-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a061124**	**Date of Collection:**	**6/4/21 8:54:00 AM**
Dil. Factor:	**1.94**	**Date of Analysis:**	**6/12/21 12:17 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.97	Not Detected	4.8	Not Detected
Vinyl Chloride	0.97	Not Detected	2.5	Not Detected
Freon 11	0.97	1.0	5.4	5.7
Freon 113	0.97	0.98	7.4	7.5
1,1-Dichloroethene	0.97	1.3	3.8	5.2
2-Propanol	3.9	7.4	9.5	18
Carbon Disulfide	3.9	4.9	12	15
Methylene Chloride	9.7	Not Detected	34	Not Detected
Hexane	0.97	Not Detected	3.4	Not Detected
1,1-Dichloroethane	0.97	Not Detected	3.9	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.9	14	11	40
Chloroform	0.97	Not Detected	4.7	Not Detected
1,1,1-Trichloroethane	0.97	Not Detected	5.3	Not Detected
Carbon Tetrachloride	0.97	Not Detected	6.1	Not Detected
Benzene	0.97	Not Detected	3.1	Not Detected
1,2-Dichloroethane	0.97	Not Detected	3.9	Not Detected
Trichloroethene	0.97	Not Detected	5.2	Not Detected
1,4-Dioxane	3.9	Not Detected	14	Not Detected
Toluene	0.97	Not Detected	3.6	Not Detected
1,1,2-Trichloroethane	0.97	Not Detected	5.3	Not Detected
Tetrachloroethene	0.97	17	6.6	110
o-Xylene	0.97	Not Detected	4.2	Not Detected
TNMOC ref. to Heptane (MW=100)	19	170	79	700

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	110	70-130
1,2-Dichloroethane-d4	96	70-130
4-Bromofluorobenzene	96	70-130

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Client Sample ID: OC_SVE_MID_GAC_060421

Lab ID#: 2106174-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a061125**	**Date of Collection: 6/4/21 8:54:00 AM**	
Dil. Factor:	**2.02**	**Date of Analysis: 6/12/21 12:43 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.0	Not Detected	5.0	Not Detected
Vinyl Chloride	1.0	Not Detected	2.6	Not Detected
Freon 11	1.0	Not Detected	5.7	Not Detected
Freon 113	1.0	5.7	7.7	44
1,1-Dichloroethene	1.0	1.4	4.0	5.6
2-Propanol	4.0	17	9.9	42
Carbon Disulfide	4.0	Not Detected	12	Not Detected
Methylene Chloride	10	Not Detected	35	Not Detected
Hexane	1.0	Not Detected	3.6	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.0	Not Detected	12	Not Detected
Chloroform	1.0	Not Detected	4.9	Not Detected
1,1,1-Trichloroethane	1.0	3.3	5.5	18
Carbon Tetrachloride	1.0	Not Detected	6.4	Not Detected
Benzene	1.0	Not Detected	3.2	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.1	Not Detected
Trichloroethene	1.0	1.2	5.4	6.5
1,4-Dioxane	4.0	Not Detected	14	Not Detected
Toluene	1.0	Not Detected	3.8	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.5	Not Detected
Tetrachloroethene	1.0	2.0	6.8	14
o-Xylene	1.0	Not Detected	4.4	Not Detected
TNMOC ref. to Heptane (MW=100)	20	37	83	150

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	109	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	92	70-130

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Client Sample ID: OC_SVE_INF_GAC_060421

Lab ID#: 2106174-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a061126**	**Date of Collection: 6/4/21 8:55:00 AM**	
Dil. Factor:	**2.02**	**Date of Analysis: 6/12/21 01:10 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.0	Not Detected	5.0	Not Detected
Vinyl Chloride	1.0	Not Detected	2.6	Not Detected
Freon 11	1.0	Not Detected	5.7	Not Detected
Freon 113	1.0	4.5	7.7	35
1,1-Dichloroethene	1.0	1.2	4.0	4.8
2-Propanol	4.0	4.2	9.9	10
Carbon Disulfide	4.0	Not Detected	12	Not Detected
Methylene Chloride	10	Not Detected	35	Not Detected
Hexane	1.0	Not Detected	3.6	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.0	7.2	12	21
Chloroform	1.0	Not Detected	4.9	Not Detected
1,1,1-Trichloroethane	1.0	2.5	5.5	14
Carbon Tetrachloride	1.0	Not Detected	6.4	Not Detected
Benzene	1.0	Not Detected	3.2	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.1	Not Detected
Trichloroethene	1.0	3.6	5.4	19
1,4-Dioxane	4.0	Not Detected	14	Not Detected
Toluene	1.0	Not Detected	3.8	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.5	Not Detected
Tetrachloroethene	1.0	58	6.8	400
o-Xylene	1.0	Not Detected	4.4	Not Detected
TNMOC ref. to Heptane (MW=100)	20	240	83	980

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	110	70-130
1,2-Dichloroethane-d4	94	70-130
4-Bromofluorobenzene	95	70-130

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Client Sample ID: Lab Blank

Lab ID#: 2106174-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a061106c**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/11/21 12:40 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
TNMOC ref. to Heptane (MW=100)	10	Not Detected	41	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	110	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	97	70-130

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Client Sample ID: CCV

Lab ID#: 2106174-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a061102**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/11/21 10:03 AM**	

Compound	%Recovery
Freon 12	93
Vinyl Chloride	107
Freon 11	82
Freon 113	86
1,1-Dichloroethene	91
2-Propanol	102
Carbon Disulfide	92
Methylene Chloride	104
Hexane	111
1,1-Dichloroethane	99
2-Butanone (Methyl Ethyl Ketone)	98
Chloroform	100
1,1,1-Trichloroethane	96
Carbon Tetrachloride	98
Benzene	104
1,2-Dichloroethane	90
Trichloroethene	103
1,4-Dioxane	112
Toluene	112
1,1,2-Trichloroethane	107
Tetrachloroethene	99
o-Xylene	119
TNMOC ref. to Heptane (MW=100)	100

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	109	70-130
1,2-Dichloroethane-d4	95	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: LCS

Lab ID#: 2106174-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a061103**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/11/21 10:28 AM**	

Compound	%Recovery	Method Limits
Freon 12	92	70-130
Vinyl Chloride	108	70-130
Freon 11	83	70-130
Freon 113	89	70-130
1,1-Dichloroethene	92	70-130
2-Propanol	109	70-130
Carbon Disulfide	92	70-130
Methylene Chloride	100	70-130
Hexane	113	70-130
1,1-Dichloroethane	97	70-130
2-Butanone (Methyl Ethyl Ketone)	101	70-130
Chloroform	98	70-130
1,1,1-Trichloroethane	97	70-130
Carbon Tetrachloride	100	70-130
Benzene	104	70-130
1,2-Dichloroethane	89	70-130
Trichloroethene	104	70-130
1,4-Dioxane	113	70-130
Toluene	110	70-130
1,1,2-Trichloroethane	107	70-130
Tetrachloroethene	100	70-130
o-Xylene	123	70-130
TNMOC ref. to Heptane (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	109	70-130
1,2-Dichloroethane-d4	93	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: LCSD

Lab ID#: 2106174-06AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a061104**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/11/21 10:53 AM**	

Compound	%Recovery	Method Limits
Freon 12	92	70-130
Vinyl Chloride	110	70-130
Freon 11	89	70-130
Freon 113	90	70-130
1,1-Dichloroethene	94	70-130
2-Propanol	108	70-130
Carbon Disulfide	94	70-130
Methylene Chloride	101	70-130
Hexane	114	70-130
1,1-Dichloroethane	98	70-130
2-Butanone (Methyl Ethyl Ketone)	103	70-130
Chloroform	99	70-130
1,1,1-Trichloroethane	98	70-130
Carbon Tetrachloride	101	70-130
Benzene	104	70-130
1,2-Dichloroethane	89	70-130
Trichloroethene	104	70-130
1,4-Dioxane	113	70-130
Toluene	112	70-130
1,1,2-Trichloroethane	106	70-130
Tetrachloroethene	99	70-130
o-Xylene	123	70-130
TNMOC ref. to Heptane (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	108	70-130
1,2-Dichloroethane-d4	93	70-130
4-Bromofluorobenzene	96	70-130

2106174

Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: (714) 895-5494 . FAX: (714) 894-7501

AIR CHAIN OF CUSTODY RECORD

DATE: 06/04/21
PAGE: 1 OF 1

LABORATORY CLIENT: de maximis
ADDRESS: 1322 Scott St., Suite 104
CITY: San Diego STATE: CA ZIP: 92106
TEL: (562) 756-8149 EMAIL: jdinello@demaximis.com
TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☑ 5 DAYS ☐ 10 DAYS
SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY): ☐ EDD
SPECIAL INSTRUCTIONS:

CLIENT PROJECT NAME / NUMBER: Omega - OU1 SVE Monthly GAC Sampling
PROJECT ADDRESS: 12520 Whittier Blvd.
CITY: Whittier STATE: CA ZIP: 90602
PROJECT CONTACT: Trent henderson thenderson@jacobandhefner.com
SAMPLER(S): (NAME / SIGNATURE) Khalid Azhar

P.O. NO.:
LAB CONTACT OR QUOTE NO.:
LAB USE ONLY ☐☐-☐☐☐☐

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	FIELD ID / Point of Collection	Air Type (I) Indoor (SV) Soil Vap. (A) Ambient	Sampling Equipment Info: Canister ID#	Canister Size 6L or 1L	Flow Controller ID#	Start Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	Stop Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	TO-15 (TAL 2.3)
01A	1 OC_SVE_EFF_GAC_060421	SP-EFF-GAC	SV	3400 1244	1 L	22630	6/4/2021	0848	-29	6/4/2021	0854	-5	X
02A	2 OC_SVE_MID_GAC_060421	SP-MID-GAC	SV	3400 1184	1 L	25101	6/4/2021	0849	-28	6/4/2021	0854	-5	X
03A	3 OC_SVE_INF_GAC_060421	SP-INF-GAC	SV	3400 0755	1 L	22266	6/4/2021	0850	-26.5	6/4/2021	0855	-4.5	X
	4												
	5												
	6												
	7												
	8												
	9												
	10												
	11												
	12												
	13												
	14												
	15												

Fed Ex
Custody Seal Intact?
Y N None Temp NA

Relinquished by: (Signature) Received by: (Signature) Date: 6.7.21 Time: 1032
Relinquished by: (Signature) Received by: (Signature) Date: Time:
Relinquished by: (Signature) Received by: (Signature) Date: Time:

ATTACHMENT G

Data Validation Repots

Data Quality Assessment
Vapor Phase GAC
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site
Second Quarter 2021

SDG Number	Sample ID	Collection Date	Number of Samples	Analysis Method	Validation Level	QC Reviewed	Data Usability
2104386	OC_SVE_EFF_GAC_041621	04/16/2021	3	TO15	Stage 2B	IC, CC, Holding Times, Sample Receipt Conditions, Surrogates, MB, LCS/LCSD	TNMOC results were not validated. No qualification of sample results was warranted.
	OC_SVE_INF_GAC_041621						
	OC_SVE_MID_GAC_041621						
2105272	OC_SVE_EFF_GAC_050721	05/07/2021	3	TO15			TNMOC results were not validated. No qualification of sample results was warranted.
	OC_SVE_INF_GAC_050721						
	OC_SVE_MID_GAC_050721						
2106174	OC_SVE_EFF_GAC_060421	06/04/2021	3	TO15			TNMOC results were not validated. No qualification of sample results was warranted.
	OC_SVE_INF_GAC_060421						
	OC_SVE_MID_GAC_060421						